



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

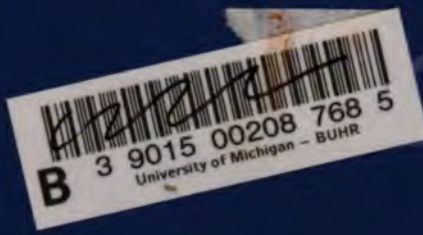
Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>



ARY
ICKY

NORTH CAROLINA Medical Journal.

Published Semi-Monthly at \$2.00 per Annum.

Robert L. Gibbon, M. D., Robert D. Jewett, M. D., W. H. Wakefield, M. D.,

Editors and Proprietors.

[Entered at the Post-Office at Charlotte, N. C., as Second-class mail matter.]

Taka-Diastase

is unquestionably *the* remedy where dyspeptics are suffering from inability of the digestive organs to convert starchy foods into sugars, and this is acknowledged to be the cause of *three-fourths* ($\frac{3}{4}$) of all the cases of dyspepsia.

Make the following test and be convinced:

To a small bowl of well cooked starch jelly add the contents of a capsule of Taka-Diastase; stir, and at intervals of one minute place a drop of the digesting starch on a white plate, add a drop of dilute Iodine solution, and spread on the plate with the finger tip. The beautiful play of colors from greenish-blue through blue-violet, violet, brownish-violet to yellow indicates the successive conversion of the starch into soluble - starch, into dextrins, into malt sugar.

PARKE, DAVIS & CO., Home Office and Laboratories, Detroit, Mich.
Branches in New York, Kansas City, Baltimore, and New Orleans, U. S. A.

610.5
C29
M5
43644

LISTERINE

The Standard Antiseptic.

LISTERINE is a non-toxic, non-irritating and non-escharotic antiseptic, composed of ozoniferous essences, vegetable antiseptics and benzo-boracic acid.

LISTERINE is sufficiently powerful to make and maintain surgical cleanliness in the antiseptic and prophylactic treatment and care of all parts of the human body.

LISTERINE has ever proven a trustworthy antiseptic dressing for operative or accidental wounds.

LISTERINE is invaluable in obstetrics and gynecology as a general cleansing prophylactic, or antiseptic agent, and is an effective remedy in the treatment of catarrhal conditions of every locality.

LISTERINE is useful in the treatment of the infectious maladies which are attended by inflammation of accessible surfaces—as diphtheria, scarlet fever, and pertussis.

LISTERINE is especially applicable to the treatment of scarlet fever, used freely as a mouth wash, or by means of the spray apparatus.

LISTERINE is extensively prescribed in typhoid fever, both for its antiseptic effect and to improve the condition of the stomach for the reception of nourishment.

LISTERINE agreeably diluted, is prescribed with very good results, in the treatment of diphtheria, both as a prophylactic and curative—internal antiseptic—agent.

LISTERINE is used extensively with good results in the treatment of whooping-cough.

LISTERINE diluted with water or glycerine speedily relieves certain fermentative forms of indigestion.

Listerine is indispensable for the preservation of the teeth, and for maintaining the mucous membrane of the mouth in a healthy condition.

Listerine employed in a sick-room by means of a spray, or saturated cloths hung about is actively ozonifying and imparts an agreeable refreshing odor to the atmosphere.

Listerine is of accurately determined and uniform antiseptic power and of positive originality.

Listerine is kept in stock by the leading dealers in drugs, everywhere.

Lambert's Lithiated Hydrangea.

Close clinical observation has caused Lambert's Lithiated Hydrangea to be regarded by Physicians generally as a very valuable Renal Alternative and Anti-Lithic Agent.

ALBUMINURIA,
BRIGHT'S DISEASE,
CYSTITIS,
DIABETES,
GOUT,
HÆMATURIA,
LITHÆMIA,
NEPHRITIS,
RHEUMATISM,
URINARY CALCULUS,
and all forms of
VESICAL IRRITATION.

For Descriptive Literature, Address
LAMBERT PHARMACAL CO., ST. LOUIS.

NORTH CAROLINA MEDICAL JOURNAL.

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIII.

CHARLOTTE, JANUARY 5, 1899.

No. 1

Original Communications.

Report of Interesting Cases of Appendicitis, Etc.

By HENRY F. LONG, M. D., Statesville, N. C.

[Written for the North Carolina Medical Journal.]

BELIEVING that it may be of some interest to your readers, I take the liberty of sending you the following report of a few cases which have occurred in my practice recently.

Case No. I. Mr. E. A. W., visiting in country five miles from town, was first seen about 12 o'clock at night. I found the patient in great agony, screaming and writhing with pain, the muscles almost rigid from spasm, especially in the abdomen region. He begged for relief from his intolerable pain. Sulphate Morphia, grs. $\frac{1}{4}$ was at once administered and twice repeated at half hour intervals until grs. $\frac{3}{4}$ had been injected. Then the patient was sufficiently relieved to give a history of his case, and the muscles were sufficiently relaxed to admit of an examination. The history, briefly given, was as follows :

Age, 53 years; twenty years ago, while working as a locomotive engineer, began to have colic once a month, each attack being more severe than the last. Decided to quit the road and move to the mountains. Located in Mitchell County. After removal had no further attacks of colic until about a week previous to present attack, when patient helped a neighbor to thresh wheat and thought attack was caused by over eating. Laudanum, in 40 drop doses, had controlled the pain and he had been easy until this night, when he awoke suffering from pain in abdomen, which had increased in severity until it was almost intolerable.

Examination disclosed a small tumor on right side, the whole abdominal region being very tender; temperature was $101\frac{1}{2}$ F; pulse 140. Advised immediate operation, telling patient I would return to town, get the necessary instruments, etc., and return as soon as possible. Patient objected to operation, owing to the fact that he was feeling easier and thought that, with proper care, an operation might be avoided, especially as every attack had been brought on by imprudent eating. I left him and returned to my office in town.

About 12 o'clock, noon, a runner came after me, saying the patient had another attack, more severe than the one during the night. Calling in Dr. T. E. Anderson and Dr. J. F. Long, I went to the patient prepared to operate. He died as I entered the room. That his suffering was intense can readily be believed when I report that he expired leaning with his abdomen across the back of a chair.

A post-mortem was made. When the abdomen was opened there was a gush of water, inflammatory exudate resulting from peritonitis. When this was cleared away, I sought for the appendix. I found it about twice the usual length and its extremity firmly adhered to the pelvic wall, fastened by old, well organized and dense adhesions. About half way of its length it had perforated and after removing it I found on the inside three grape seed.

This case is, to me, peculiar and of interest from the fact that it was a recurring appendicitis, a period of twenty years intervening between the first and second attacks, and simply shows that an appendix, having once become inflamed can not be trusted so long as it remains in situ, and is subject to a recurrence of inflammation upon the slightest irritation.

Case No. II. This case was one of consultation, the sufferer being a patient of Dr. M. R. Adams, a safe and conservative physician. Patient was taken with colic on Tuesday, was seen by Dr. A. Saturday, who diagnosed appendicitis and advised operation. Consent was withheld until Sunday. Preparations being completed, I went with Dr. A. to patient's residence, but as patient was in the throes of death when we reached the house, of course no operation was attempted. After death, and while preparing for a post mortem, Dr. Campbell, while exposing the abdomen, made slight pressure on lower part of this region. The structures gave way suddenly and with a gush there came rushing from the rectum a great quan-

tity of pus, estimated to be between three and four pints. This stopped the post-mortem, as death had stopped the operation. This patient had been in good health, being a stout, well built negro, up to a short time previous to the fatal attack. He had suffered from several attacks of colic, after over eating, but salts and laudanum had always relieved him. He had tried this plan when the fatal attack began but as he was not relieved had at last called in Dr. A. From all the facts that could be learned as regards his symptoms, this was an example of the fulminating form of appendicitis, involving and finally perforating the intestine, the abscess evidently being very large, judging from the enormous amount of pus which was poured out into the bed. The character of the discharge and the odor precluded the idea that this was only an ordinary discharge from the lower bowel.

Case No. III. Lee L., male, age 25 years. This patient was first seen during the summer of 1897, when he suffered from a slight attack of appendicular colic. The case was not at all severe, was readily amenable to medicinal treatment, and, as it was not a severe attack and responded so quickly to the measures taken, the patient would not listen to argument as to the advisability of having an operation performed either during the attack or after. There was no return of the colic for perhaps fifteen months, and the patient was seemingly in the enjoyment of his full health. On the night of the 7th of September last his rest was broken by a second attack of appendicular colic. He was away from home at the time and did not reach home until the night of the 8th of September, when I first saw him. He was then suffering intensely; facies anxious; right leg drawn up; excessive tenderness over McBurney's point; abdomen tender and muscles tense; no tumor could be found. The temperature showed 102 degrees F; pulse 100. Patient had been given several hyphypodermatic injections of morphia before I saw him, with but little effect. I ordered saline purge, dose every hour until free evacuation occurred and placed an ice bag over the abdomen. During the following day, the 9th there was little change in the condition. There had been free evacuation of the bowels and the pain was not so intense, but the temperature had risen to 103 degrees F. and the pulse to 115. An operation was asked for and advised, but a consultation decided to wait another 24 hours. Owing to my absence from town it was in the afternoon of the 10th before I saw him again. Then it was plain to all that his life was

in jeopardy, if indeed it was not already lost. Temperature when placed on the operating table was 105 degrees, pulse 130.

The field of operation had been prepared beforehand and after a thorough scrubbing with green soap, washed off with a bichloride solution and this followed with an alcohol bath, the incision was made. The abdominal wound was made midway between the median line and the anterior superior spine of the ilium, was about three inches long and equally distant from the line of the umbilicus and the symphysis pubis. The appendix was not readily found, owing to the fact that it was firmly adhered to the colon on one side and to a fold of small intestine on the other. These adhesions were old, well organized and so dense it was found necessary to tie off and cut them before the appendix could be released. The appendix was about five inches long, one half of it about the size of a goose quill, the other part being about one inch thick, the thick part being next to the colon. There seemed to be a stricture about the centre, which may have been the cause of the rather curious condition. The swollen, turgid and partly gangrenous end of the appendix contained about an ounce of pus and ruptured while being taken out, but as it was well packed around with gauze the intestines and cavity were not contaminated. The stump, about one half of an inch long, was stripped of peritoneum, cauterized with pure carbolic acid, invaginated into the colon, the ridge stitched and the peritoneum closed over it. The abdominal cavity was flushed out with normal salt solution, the wound closed with through and through silk worm gut sutures, sterilized gauze and adhesive strips applied. No drainage was used, not fearing either infection or hemorrhage.

There was a good reaction from operation and anaesthetic and the case rapidly progressed to recovery. Nausea was present for the first 48 hours but subsided after that and there was no other complication to deal with. The patient is now fully recovered and in perfect health and has resumed his usual avocation, that of a carpenter.

Case No. IV. Is that of Silas S., act. 65 years. This patient was first seen about June 20th, '98. He was an inmate of the detention camp at the small-pox hospital. He applied to Dr. R. A. Campbell, who was in charge, for a dose of turpentine, to act on the kidneys. He gave the following history: Fifteen years ago, after exposure in very inclement weather, he suffered from retention of urine; the running range came on him after straining at a log roll-

ing. Catheterization was practiced for some time, the usual soft catheter being used by a physician. Patient after a time began to catheterize himself with wheat straws and tender weeds. Ten years ago he had two large sized "bealings" about the scrotum, which were opened by a physician, and in next two years two others appeared and ruptured spontaneously. Urination was difficult and frequent, followed by intense pain, particularly in glans penis; there was a sensation as if the empty bladder had closed down on something about the size of a walnut; urination would be interrupted suddenly and the act only completed by catheter. Patient thought he was only attacked during the new moon; at other times was generally free from all symptoms.

About 10th of July patient suffered an attack of suppression of urine; found it impossible to introduce catheter; filiform bougie also failed to enter. Another "bealing" was exhibited, pointing in scrotum at base of penis. This was lanced and contents voided, the bladder emptying itself through the new channel. In two days a second "bealing" was announced. This one pointed behind the scrotum and opened spontaneously about half way between base of penis and anus, discharging a large amount of pus, followed by the contents of the bladder. The urine was voided through this opening for several days, along with a large amount of pus. The family would not hear to an operation until the patient was in a very precarious condition and they were convinced that his life was seriously endangered by the condition present.

The operation was undertaken July 24th. The abscess opening was enlarged and perineum laid open for one and one-half inches. A sloughing, gangrenous, rotten mass came pouring out, followed by the remains of the prostate gland. An investigation showed that the mass of corruption was the urethra, which had been entirely destroyed, from the glans penis to the neck of the bladder. Lying along the track of the urethra and anchored by a cross piece to the neck of the bladder was a piece of wheat straw $3\frac{1}{2}$ inches long and enlarged to twice its usual size by calcarious deposits. This was removed, the stricture at the neck of the bladder divided and the whole tract and vesicle flushed out with Boracic acid and normal salt solutions. A tube was introduced into the bladder, gauze packed around it and the whole anchored. In two days the wound was dressed and the tube removed. The fourth day the wound was dressed for the third and last time. Patient seen three weeks after

operation and examined. The wound had closed, leaving a vaginal opening an inch long leading to the bladder, through which the patient voided urine and over which he exercised complete control when awake. He stated that in daylight he could retain the urine as well as ever, but at night when asleep it would dribble some. He was completely restored to health and had resumed his usual work, that of a day laborer on a farm.

Case No. V. Harriet T., act. 38 years; married, seven children. Five years ago had colic and was sick four days; went two years before she had a return of the colic. Then had colic regular, never going over four days without the pains, etc. About three years ago she noticed that she could not stoop and lean to right side; could not tie or button shoe on right foot. About six months ago noticed a small tumor in right side, which tumor was movable. When first seen and examined by me the tumor was as large as an orange, located a little to the right of the umbilicus, on right side, freely movable, and pedicle could be traced toward the liver.

Incision was made in median line above umbilicus and tumor exposed. It proved to be a distended gall bladder, about nine inches long and about eight inches in circumference. The tumor was pulled up into abdominal opening and contents voided with cyst trocar. This consisted first of a serous fluid, then followed bile stained pus, in all amounting to about one fluid pint. The puncture of the trocar was enlarged. Placing one finger in the opening and supporting cyst with my hand I removed from the duct four large stones, the largest about the size of an English walnut, the others being slightly smaller. Cyst was then flushed out with hot normal salt solution, the incision closed with double row of Lembert sutures and cyst dropped back into the abdominal cavity. Abdominal incision was closed by through and through silk worm gut sutures and the usual dressing of sterilized gauze and adhesive strips applied. The wound was not disturbed until the eighth day, when the sutures were removed, perfect union having occurred. The recovery of the patient was uneventful and complete.

Dr. T. E. Anderson rendered me valuable aid and assistance in this operation.

Case No. VI. Hettie W.; patient referred to me by Dr. E. E. Kluttz, of Troutman, N. C., with following history: Act. 34 years; married and mother of four children, youngest being five years old; patient had not been well since birth of last child; suffered from

headache, pain located in back of head and neck; painful locomotion, micturition and menstruation; leucorrhœa always worse after period, but not entirely ceasing from one period to another; constipation continuous; slept best when lying on her face; was dyspeptic. Examination showed a large and plastic uterus, which was not freely movable; purulent endometritis; tubes and ovaries could be palpated, being much enlarged. Patient was thoroughly curetted and purged and placed on tonic treatment preparatory to operation.

At end of 60 days patient placed on operating table, after usual local preparation had been completed. The abdominal incision was short, and located midway between umbilicus and pubes; the opening in peritoneum being shorter still. The right ovary was readily found, but was adhered tightly to the intestines. It had undergone cystic degeneration, one of the cysts being as large as a guinea egg, the others being smaller. The adhesions which bound the ovary and appendages to the intestines were so dense it was found necessary to tie off and cut the adhesive bands with scissors. As soon as the adhesions had been thus broken up, the ovary was pulled up into the incision. The broad ligament pedicle was transfixed by a needle carrying a loop of strong silk, the pedicle was tied and severed about a quarter of an inch beyond the ligature. The stump was carefully inspected, slightly cauterized with carbolic acid and dropped back into the pelvis. The arteries were ligated separately.

The left ovary was then sought for and found. There were no adhesions but there was present a hydro-salpinx. The tube was elongated, greatly distended and convoluted. The retained fluid was mucoid, limpid and chocolate colored. Sterilized pads were packed under the ovary and tube, which were then drawn into the incision and extirpated in the same manner as the right ovary and appendages. The abdominal wound was closed by through and through silk worm gut sutures, and, on account of the adhesions, sterilized gauze drainage was used for twenty-four hours. Sterilized gauze and cotton was used in dressing the incision, held in place by adhesive strips. Sutures were removed on eighth day, the wound being perfectly healed.

The only complication was persistent but intermittent vomiting, which persisted until the fifth day, necessitating the use of nutrient rectal enemata for that length of time.

I am indebted much to Dr. M. R. Adams for assistance rendered in this operation.

Case No. VII. Annie S., act. 21 years; married; one child three years old. The labor was difficult and prolonged, a midwife being in attendance; had never felt well after birth of child, menstruated regularly until marriage; there was dysmenorrhoea after birth of child, the pain, coming on at close of menstruation and lasting four to six days, was so severe that patient was unable to leave her bed during the time; the pain was sharp and lancinating, shooting and darting through abdominal region; locomotion was painful; headache was severe just preceding and after menstruation; whites was a constant source of discomfort to patient. Examination disclosed enlarged and tender ovaries, elongated, swollen; convoluted tubes. Salpingitis following or rather caused by gonorrhea endometritis was diagnosed.

Patient was carefully prepared for operation. The incision through abdominal wall, three inches long, was made midway between umbilicus and pubes. The peritoneal opening was not as long as that in the abdominal wall. The right ovary and tube were found, being much enlarged and showing results of an extensive and severe inflammation, and exhibited numerous black, gangrenous spots on the external surface. Adhesions were numerous. These were sewn off and cut with scissors. The uterine and ovarian arteries were sought for next and tied separately. The broad-ligament pedicle was transfixed by a needle carrying a loop of silk and the pedicle tied in two parts. Pedicle was severed about a quarter of an inch beyond the ligature and the stump cauterized and dropped back into the pelvis. While the left tube and ovary were in equally as bad condition as on the right side, the adhesions were not so numerous nor as well organized, and their extirpation was less difficult. At this stage of the operation, that is, while excising the right appendages and ovary, the excessive oozing gave warning that the patient was a bleeder, and I placed sutures at the side of all adhesions which had not previously been tied off. This, with the additional precaution I had taken, which is mentioned above, the separate ligatures I had placed on the arteries, controlled perfectly all hemorrhage or oozing from raw surface. The abdomen was flushed out with normal salt solution and the wound closed with through and through silk worm gut sutures, sterilized gauze and adhesive strips completed the dressing, and the whole was protected by a many-tailed bandage.

This patient made a quick and very satisfactory recovery. The only complication being a stitch abscess, brought on by her constant

and excessive squirming, turning and general restlessness during the first 48 hours. While she complained of no pain or inconvenience, it seemed well nigh impossible for her to maintain one position for five consecutive minutes. This constant strain and pulling on the stitches produced a small, circumscribed stitch hole abscess, which readily answered to treatment. The recovery from anaesthetic was quicker than usual. Natural action on third day, and there was no other event in her case save that mentioned. The temperature and pulse, after recovery from the ether, rapidly resumed their normal tone and so remained.

In this case I have to thank Dr. J. E. McLaughlin, of Cool Spring, N. C., for valuable assistance.

Case No. VIII. Harriet J., 65 years old; married; four children; menopause during 54th year; five years ago first noticed an enlargement in abdomen; was treated—with no apparent relief—for two years for ascites; tumor, or enlargement, continued slowly increasing in size. Came under care of Dr. Parks, of Olin, N. C., who soon recognized the character of her complaint, ovarian tumor, and advised operation. Patient sent to me for operation. After a week's preparatory treatment patient was placed on table. Field of operation had been prepared thoroughly beforehand.

The abdominal incision was made in the median line and was about five inches long, the unusual length being deemed necessary for proper manipulation of the tumor, which was of unusual size. The tumor being exposed, a large sized trocar, Emmet's ovarian, was thrust into it. Two gallons and a half of a thick, chocolate colored fluid was evacuated through the canula. The fluid was not only very thick, but also held in a suspension a soft, granular substance, which looked much like coffee grounds. When nearly emptied of its contents the trocar was withdrawn, the puncture was caught up with a figure of eight ligature and thus effectively closed. Sterilized gauze had been used to protect the parts and cavity during the draining of the cyst. The cyst wall was then drawn up and out through the incision. It was found that the omentum was adhered to the superior anterior wall of the cyst, and four or five inches of intestine was adhered to the posterior superior wall. The adhesion of the intestine was so firm that separation without grave danger to the integrity of the bowel could not be accomplished. This complication was met by dissecting the cyst wall between the outer coat and inner secreting membrane and leaving this portion

attached to the gut. The omental adhesions were so dense that it was deemed advisable to dissect off about eight inches of it, the resulting raw surface being caught up with numerous catgut ligatures. At the lower portion of the cyst cavity was a solid fibrous tumor, as large as a half gallon measure, from which the cyst seemed to have its origin, it forming part of the cyst wall. The left ovary, tube and neighboring portions of the broad ligament were surrounded and inclosed within the walls of the cyst. The pedicle was readily exposed, transfixed with pedicle needle carrying a strong silk thread, which was cut, thus forming two ligatures. Each half of the pedicle was tied separately, and in addition a separate ligature was placed around the entire mass and securely tied. An artery which supplied the tumor was also tied separately, the ligature being carried around it by means of a curved needle. The abdomen was flushed out with normal salt solution, sterilized gauze drainage placed in position and the wound closed with through and through silk worm gut sutures. The dressing was of sterilized gauze and cotton held in place with adhesive strips and protected with many-tailed bandage.

The cyst wall, tumor and fluid contents of the cyst weighed, when removed, exactly twenty-six pounds.

The convalescence of this patient has been phenomenal. Her condition when placed on the table was such we feared she would not survive the operations. The pulse was especially bad, being very weak, rapid and of uncertain quality. The respiration was labored and shallow. However, as soon as the weight of the tumor had been reduced by the removal of the fluid, and, of course, the pressure of it against the diaphragm, the pulse and respiration began steadily to improve. This improvement continued and at this writing, ten days after operation, the pulse and respiration are remarkably strong and full for one of the patient's age. On the 6th day after operation the wound was dressed for the first time in toto. The gauze drainage had been removed on the second day, but this was done without disturbing the dressing. The wound was found in good condition, having healed by first intention, and there was not the slightest discharge. The patient disturbed us considerably two hours after operation by suddenly, and with one effort, turning over on her side, placing a pillow under her head and going to sleep. The bowels were evacuated naturally on the second day. There has been no temperature, no nausea, no complication of any kind; the organs

of secretion have been active and the discharges have been normal. It has been an ideal case from beginning to end.

Certainly the country surgeon should not hesitate to undertake an operation because he has no hospital operating room at his elbow. Sepsis can be prevented and asepsis maintained anywhere. The room and furniture have little or nothing to do with the success of an operation. An aseptic operation depends entirely upon the operator and his assistants. This last case was treated in an old camp house, 15 by 25 feet in size, containing one room in which six persons beside the patient ate, slept and lived. It was a tumble-down house with plenty of ventilation through walls, roof and floor.

The bichloride solution is only used to cleanse the hands and the field of operation. It is never introduced into the abdominal cavity.

The normal salt solution is used for sponging purposes, to flush out the abdominal cavity or site of wound if not in a natural cavity, and as a rectal enema immediately after the operation and before patient is taken off the operating table. Should there be profound shock after operation or from an accident which demands an operation, large quantities are introduced directly into the loose tissues of different portions of the body.

Kelly's method of avoiding all possibility of hemorrhage in operation for ablation of the uterine appendages is followed. This is the tying, separately, of the uterine and ovarian vessels. Ligatures of small catgut are used freely to control bleeding from raw surfaces made by breaking up adhesions.

In these, as well as in many other surgical operations I have done lately, I am indebted to my friend, Dr. R. A. Campbell, not only for direct assistance in operating but for aid in the preparation and after treatment of my cases.

**Reported to the Louisville Clinical Society. (1) Fecal Impaction :
(2) A Case for Diagnosis. (Abstract.)**

By JOSEPH M. MATHEWS, M. D.

Professor of Surgery and Clinical Lecturer on Diseases of the Rectum in the
Kentucky School of Medicine, etc., Louisville, Ky.

Stenographically Reported for this Journal by C. C. Mapes, Louisville, Ky.

A PATIENT from the South presented letters from two physicians explaining his case: One declared that he had an enlarged prostrate the size of a fist which encroached upon his rectum and interfered with the passage of fecal matter; that because of this he had difficulty in urination. The other physicians agreed with the first, but stated in addition to the enlarged prostrate I would find the patient had a rectocele (?). I say rectocele with an interrogation point, because there was no protrusion from the rectum, and I cannot understand why it should have been supposed that the man had a rectocele.

I found the patient to be seventy-two years of age, with a robust constitution, fine physique, who had been in excellent health until within the last two months, when he complained of frequent desire to defecate, with involuntary passage of feces, some difficulty in urination, a heavy weight in the perineum or a continual sense of discomfort in the rectum as if he desired to go to stool.

After reading the letters I remarked that the case might be out of my line, but said: "Suppose you allow me to make an examination?" Introducing my finger into his rectum I found his prostrate perfectly normal—if I may be allowed the expression more than normal to a man of his age—there was no enlargement. I found no pathological change in his rectum, with no history of protrusion; but pushing my finger into the gut I found a large ball of fecal matter in the sigmoid flexure, and then suggested that his case did fall in my line. At the infirmary the following day under chloroform I dilated his sphincter muscle and inserting my finger into his rectum detected a fecal impaction as large as a fetal head in the sigmoid flexure. It was of the consistence of putty—nearly of glue—a white mass; introducing an instrument, a large curette which carried a stream of water behind it, I broke down and scooped out much of this clayey mass, but found it impossible to remove one-tenth of the quantity present. I was afraid to handle an instrument in the sigmoid flexure because of danger of wounding the gut,

but I broke down the mass effectually. The next morning he was given a purgative and a high irrigation of the colon, and in five days he succeeded in passing the entire mass, which was a very large amount. He returned home entirely relieved of all symptoms.

I have witnessed but two impactions of fecal matter in the sigmoid flexure, and they were both produced by the same cause, viz: the eating of oatmeal. The father of the Health Officer of Louisville died from impaction of the sigmoid flexure produced by oatmeal eating. He had some disturbance of the digestive apparatus and concluded to eat oatmeal exclusively for a number of days extending into weeks—he had the same character of impaction and died

The patient the subject of this report said he had some disturbance of the bowels, and concluded to live upon oatmeal—at least making his breakfast entirely of it—and I am led to believe the aged especially should avoid this diet, and it might be well to give the same advice to those not aged. In reply to the question if any evidence of fecal impaction was discovered by external examination, I will say the patient was very fleshy and nothing could be detected through the abdominal wall.

Case 2. Three days ago I was called to Knoxville, Tennessee, to see a patient and give an expert opinion in a case of rectal trouble. I found the patient was a prominent citizen of Knoxville, and a very intelligent man. Ten days previously his physician had left the city leaving the patient in charge of a younger member of the profession. Before I interviewed the patient I asked that this physician be summoned; he stated that the patient had some rectal ulceration, (so he had been told by the older physician) but had never himself examined the rectum; that the disease had existed several years, the treatment of the older physician having extended over several months, his method being probably the application of nitrate of silver and agents of this class. The patient was forty-five years of age, and to judge from his physical appearance was in a rather healthy condition. Introducing my finger, which is the best method of examining the rectum, I found between the two sphincter muscles a sinus, or hole, one inch in depth; above this another sinus, or opening, running around laterally about one inch. Further up on the perineal side there was an infiltrated condition of the tissues (not an ulceration because the mucous membrane was in-

tact) to the extent of two silver dollars put together, and directly above, a polypus the size of my finger, at the entrance of the sigmoid flexure, that evidently played above and below. The man gave a history of diarrhea, having occasionally passed clotted blood and some mucus from the rectum. Two weeks before my visit he said to his physician: "I am feeling so badly that I believe I will go to bed." After going to bed he decided to live upon a milk diet, which he had done for ten days before I saw him, still the bowels were acting eight or ten times a day.

After examination I proposed to remove the polyp by applying a long clamp, cutting off the polyp and leaving the clamp for a short time, then to divide the sinus in the rectum below, trimming the edges to encourage healing, and trust to the other condition (which I took to be from irritation) to be absorbed by nature. I moved around to the front of the bed to explain the condition to the patient, and looking into his face did not like his appearance, and asked him to let me examine his tongue; he put out a tongue which was red, coated and furred; he told me his physician stated before leaving that this condition of his tongue was from the milk he had been taking. I asked the attending physician what the patient's temperature was, and he said he had never taken it. The thermometer showed a temperature of 101° F., and the man said he had great pain at times throughout his abdomen. He was at that time more or less lethargic, and I found that he had a tympanic belly which was extremely sensitive to the touch.

In the consultation room I said: "Doctor, this man, in my opinion, has typhoid fever. He now has peritonitis, and I consider him in a dangerous condition and cannot of course under the circumstances operate at all." Last night I received a dispatch from the patient's wife (and the case is reported more to get your advice) reading as follows: "Fecal matter is coming from the bladder; will this be fatal?"

It is plain the attending physician believed all the symptoms originated from the patient's rectal trouble; there was no rectal trouble *per se* to give rise to the symptoms present. Again, no account of the temperature, pulse or tongue had been recorded, and the patient had not been visited by his physician for ten days.

What I desire to ask is, has this man typhoid fever? I think he has. Has he peritonitis, septic or otherwise, independent of typhoid fever? What is the meaning of this dispatch? There can be no

communication between the bladder and the bowel in this case, in my opinion, except through the rectum. Is it that the ulceration manifest in his rectum—which in its entirety showed to me to be covered by mucous membrane and was not ulceration at all—has been percolating fecal matter into the bladder and out through the urethra? If so, as he has never passed fecal matter through the bladder before, what part does that play in his trouble? That this man is seriously ill I do believe, if not fatally ill, that his symptoms do not occur from his rectal trouble I am perfectly satisfied, and my honest belief is that he is now and has been for a number of days suffering with typhoid fever. I also ask what is the cause of the peritonitis? The case has given me a great deal of anxiety. His temperature when I left him was 102° F. and showed a rise at night. He said to me himself: "Doctor, I have been having fever for three weeks." He said before he went to bed he had a temperature of 102° F.—I am not aware how he knew this.

Now, the question is whether or not the sinus running around the gut laterally has communicated with the bladder since I saw the patient. I could find no such communication at the time I examined him. Perhaps I made a correct diagnosis, and perhaps not. To me the man presented almost a typical case of typhoid fever. His rectal trouble did cause him to have a temperature of 102° F., with a typical typhoid tongue and almost a typhoid condition. Understand me that he had passed fecal matter from his bladder or urethra, and there was no such history at the time I saw him, but a message comes last night stating that he "is passing fecal matter from the bladder." What connection has the peritonitis with this fact, or has it any?

DISCUSSION.

Dr. T. P. Satterwhite:

I am doubtful whether fecal matter passed from the bladder. There is no history of ulceration that would cause such a connection; also if there was a communication between the bowel and the bladder the urine would escape through the bowel and very little through the urethra, and as there is no account of urine passing through the bowel I doubt that fecal matter passed through this channel.

Dr. August Schachner:

To answer the question whether or not this is a case of typhoid fever one would have to see and study the case thoroughly in all its

aspects. There must be some active ulceration going on; this is evident from the fact that there has been progression since Dr. Mathews' visit. It has gotten into the bladder if the information given in the telegram is correct. It is progressive whatever it is.

As for typhoid fever, it may or may not be a case. I do not see how any of us without having seen the case can state positively that it is or is not typhoid fever. It is evident from Dr. Mathews' statement that there is some inflammatory process going on about the rectum, and it must be rather extensive to have made a perforation into the bladder, which is true if the observation is correct as noted in the dispatch.

Dr. Louis Frank:

The symptoms Dr. Mathews has mentioned we know are the prominent symptoms of typhoid fever, but we also know they might be due to a septic process from active ulceration about the rectum, or at least to the absorption of septic products. However, it strikes me as rather improbable that an ulceration existing for so long with such a free outlet for the pus and the natural discharges here, should now extend rapidly and lead to perforation of the bladder. It might be a perforation from typhoid fever into the bladder, or an opening may have occurred higher up which would allow the escape of fecal matter through the bladder.

Dr. W. O. Roberts:

Both cases reported by Dr. Mathews are of great interest: In regard to the case of fecal impaction—where the patient was having frequent actions from the bowel—we meet with such cases not infrequently. I saw a man yesterday whose leg was amputated some months ago, who was troubled with frequent evacuation and was treated before I saw him for diarrhea. I believe I removed fully a quart of fecal matter from his rectum. I have had several such cases recently, and it is perfectly wonderful how much fecal matter the rectum and sigmoid will hold. I removed fecal masses from a patient not long ago almost as hard and felt like rocks. The patient told me he had been operated upon for hemorrhoids some months before and when I put him on the table for examination and went to introduce my finger into the rectum I found that I could not do so. By careful inspection I found an opening so small I could scarcely get a lead pencil through it. Under chloroform I divided the stricture and then dilated this with a Cook speculum, and the masses that I removed from his rectum were

as hard as lumps of clay, perfectly enormous in quantity, notwithstanding the fact that the patient had been going about attending to his business. Another patient was a female whose leg was amputated at the hip joint several years ago. She had a number of fecal fistulas, one extending into the bladder.

As to the other case: It is more likely sepsis than typhoid fever.

Dr. Wm. Cheatham:

If the ulceration extended into the bladder from the rectum, the natural inference would be that urine would pass through the rectum rather than fecal matter through the urethra, especially as there is no obstruction in the rectum.

Dr. P. Guntermann:

If I understood Dr. Mathews correctly he said there were two or three strictures or sinuses in the rectum, one extending around the gut in front across the perineum—whether he meant this or not I do not know—that he could sweep his finger around toward the perineum and feel this old stricture, sinus, core or whatever it may be, which had been treated for years by a good man with applications of nitrate of silver, etc. There must have been some serious condition about the rectum otherwise the doctor would not have made local applications of the nitrate of silver. Now Dr. Mathews inserted his finger into the sinus and curved it around one inch, he said; might he not possibly have done some damage by this manipulation? Might not his finger possibly have entered or nearly entered the bladder? Of course the rectal polyp we will say nothing about as it could not have played any part in the discharge of fecal matter through the urethra. After the doctor made his examination within twenty-four hours he received a message that fecal matter was being discharged from the bladder: I rather feel inclined to believe that there was an ulceration of the rectum, and that by manipulation some damage may have been done.

Dr. Geo. W. Griffiths:

The whole matter as to typhoid fever and the cause of the elevation of temperature is purely guess-work. Only one observation was taken which showed temperature 101° F., and pulse 120. There is not a complete record of the case. I do not think that any medical society on the face of the earth can tell whether the man has typhoid fever or not without having a chance to make a thorough examination. I am frank enough to state, however, that

I believe any diagnosis made by Dr. Mathews would be based upon good, sound judgment. If he says it is a case of typhoid fever I am willing to agree.

Dr. Carl Weidner :

The first case reported by Dr. Mathews should be a lesson to every practicing physician, and he ought to be lauded for bringing the case before us. It is comparatively a simple condition to detect, still it is overlooked by many physicians, and shows that we are all liable to make mistakes. I have seen several marked cases of fecal impaction following typhoid fever, the rectum being distended with hardened fecal masses that felt not only like clay, but like stone or sandstone. I think in typhoid fever especially we should watch patients carefully and towards the end of the disease not allow them to go more than two days without a fecal evacuation.

As to the second case : I must say from Dr. Mathews' report of the case I am like the other gentlemen, just as much at sea as one could possibly be. Dr. Mathews being the only member present who has seen the case, and being an able diagnostician, certainly his opinion is entitled to more consideration than that of those who have not examined the patient. I could not help thinking, however, while listening to his report, that he made rather a hasty diagnosis of typhoid fever. We know that patients with typhoid fever will sometimes be up and around until about the time ulceration takes place. Usually, however, especially in grown persons, they are sick enough to go to bed. I agree with Dr. Schachner and others that there must have been some progressive condition of the bowel to account for the chronic course as stated. It would require very hash treatment to produce artificially the condition of the rectum described. I would like Dr. Mathews to tell us whether the edges of the diverticulum were rough and uneven ; it certainly looks like chronic ulceration ; then again he found an inflamed patch higher up in the rectum ; also found a polyp ; all of these conditions point to some chronic inflammatory process. The rectal condition alone may have been sufficient to cause the symptoms present, elevation of temperature, rapid pulse, etc. It certainly must remain an open question whether it is typhoid fever or not.

I had in mind when the doctor reported the case, on account of its chronicity, the possibility of *tubercular* trouble. Tubercular infection would account for the symptoms detailed. Medicine makes progress, and I would suggest that light might have been thrown on

the case by the new blood serum test for typhoid fever originated by Pfeiffer and Widal. By means of this test we are able to make a positive diagnosis very quickly. Of course under the older methods we can usually make our diagnosis after so many days, especially if we watch the patient from the beginning of the attack. In suspected cases of typhoid fever by examining the blood by the specific reaction of the typhoid serum, as it is called, upon cultures of the typhoid bacillus, we have a positive means of confirming the diagnosis.

In the case Dr. Mathews has reported I think a post mortem will probably have to be made before we can make a positive diagnosis.

Dr. W. H. Wathen:

The result in the first case shows conclusively the wisdom of making thorough examinations and in perfectly carrying out the treatment. I have not had a very extensive experience with fecal impactions, but have known of several such cases. Eight or ten years ago Dr. Mathews reported to one of the medical societies of this city that the rectum occasionally reversed its peristalsis and fecal matter was returned from the rectum up into the sigmoid flexure. I did not believe there was anything in this, thought it was one of his beautiful theories that he could not prove, and said nothing about it. Three years ago he asked me to go to the Infirmary and examine a lady for some pelvic trouble. He had examined her on several occasions, but could find nothing wrong, still she always complained of fecal matter in the bowel that she could not get away. Dr. Laws had also examined the patient on several occasions and the rectum had always been found empty. As soon as I introduced my finger into the vagina I found that the rectum was crowded with fecal matter which was very hard, and I took occasion to properly deal with it while it was within reach. The fecal matter was removed from the rectum as thoroughly as possible and as quickly as it could be done. This case demonstrates the correctness of Dr. Mathews' theory of reversed peristalsis of the rectum. There can be no question about this, because there was a large quantity of fecal matter present which had been accumulating perhaps for weeks or month's, the patient having been examined many times previously and the rectum was always found empty.

Dr. W. C. Dugan:

The second case reported is one of great interest to me. There is no question about its being a typical illustration of what is known

as the "typhoid condition" but I am not ready to accept the diagnosis of "typhoid fever." I am satisfied the condition Dr. Mathews described is an internal fistula extending up one inch, and that this has perforated into the bladder. Dr. Weidner may be correct that the trouble was originally tuberculous in character, and that it has now taken on septic infection. I agree with Dr. Schachner that there must be trouble higher up in the fossa just under the peritoneum and possibly pus has worked its way upward and the patient has peritonitis from that cause. This, however, is merely guess-work. Of course it is possible that it is a case of appendicitis, that the appendix has fallen down into the pelvis and become attached to the bladder. Everyone who has operated upon many cases for appendicitis has probably met with such cases. This is a possible explanation; at any rate I am satisfied the pus or ulceration has extended into the bladder from the points Dr. Mathews found in the rectum, and that it is a septic typhoid condition from which the patient is suffering. While I say I am satisfied of this, still it may be tubercular.

Dr. T. P. Satterwhite:

With reference to Dr. Mathews' remarks concerning restriction of that exceedingly valuable article of diet, oat meal. I do not know of any class of people who live more exclusively upon it than the Scotch, and it would be interesting to know if the Scotch are any more prone to fecal impactions than any other class of people. It is a food that is so exceedingly valuable especially to younger people as it is loaded with phosphates, that we ought not, I think, to try to restrict its use without it is very clear in our minds that it is an injurious article of diet. It is a very nutritious article of food, it is comparatively inexpensive, it is largely used by certain classes of people, and its restriction should not be advised unless there is positive evidence against it. It would like for Dr. Mathews to tell us in closing the discussion whether in his reading he has found that the Scotch people are troubled to a greater extent with fecal impactions than other classes.

Dr. J. W. Irwin:

The cases detailed have been of great interest to me, especially the very excellent report of the first case made by Dr. Mathews. The second case is not so clear, it is not so well reported, there remains about it a great amount of doubt. To express a useful opinion with the limited information before us would, it seems, be a

difficult matter to do. We cannot well say that this is a case of tuberculosis, coming on so suddenly, without the patient showing indications of the disease elsewhere. If it is tuberculosis it must be a chronic form, and there must be manifestations of the disease in other parts of the body. If it is a case of typhoid fever it certainly must have passed over a period of three weeks, or to that stage when ulceration ensues, but we have no history of the grave symptoms that we usually observe in perforations. All the perforations I have seen, no matter where they occurred, have been accompanied with a great amount of shock and other grave symptoms. We have in this case no evidence of intense shock. I recall two cases, one of them occurred in this city, where ulceration of the appendix ensued in typhoid fever about the twenty-first day, and autopsy revealed that by some mysterious process the appendix had become adherent to the bladder, and the ulceration had penetrated the coats of the bladder in both instances and the patients passed blood from the urethra following the shock of perforation, both patients died and the autopsies revealed the condition described.

Touching the question raised by Dr. Cheatham: I am glad he asked the question if ulceration of the rectum ensued, why is it that leakage did not occur into the rectum from the bladder, the urine passing out through the rectum, rather than fecal matter escaping into the bladder and passing out through the urethra; the latter according to all laws of gravity would seem impossible, but there are no impossibilities in medicine. The ulceration might have taken place higher up. The opening may have been small and fecal matter may have passed through the urethra but it must have been a very small quantity, if such a thing occurred. As to whether it is a case of typhoid fever or not must remain an open question. We certainly have not the history of a tubercular process that would bring about such an ulceration as has been referred to. We have not the history of typhoid fever that would bring about such a condition as to have fecal matter discharging through the bladder, but whatever the trouble is it seems to be a grave one, and time alone will reveal all the facts.

Dr. J. M. Mathews:

I have been misunderstood in one particular. I did not make the positive diagnosis of typhoid fever. After I examined the man and consulted with his physician, I said that the patient certainly had peritonitis, and the question is what could have caused it? I am

sure the condition found in his rectum could not have been responsible for it; I made this statement at the time and am still positive about it. The man had been ill nearly three weeks, he was ill enough to say to his physician two weeks before I saw him, "I feel so badly (physically, not from pain or disturbance in his rectum, but so badly in a general way) that I must lie down, I believe I will go to bed." The condition whatever it is had then evidently existed for a week. Prior to that time (i. e. three weeks prior to the time I saw him) he had had no peritoneal trouble nor pain so far as I can learn.

Let us consider some of the questions brought up in the discussion: Anatomically where were the openings or sinuses I have described? They were just inside the verge of the anus, just above the external sphincter muscle, and I could introduce my finger into the openings about one inch. I operated upon a young girl (twenty-two years of age) this morning having exactly such a condition. She had no elevation of temperature, and no evidence of fever, no acceleration of pulse, no coated tongue, and said she had suffered with the condition for over a month.

Suppose I could hook my finger into the opening for one inch, where would it go? Simply into the tissues around the rectum and not towards the bladder. It would not reach the bladder within three inches. The lower part of the rectum, so far as the sinus is concerned, has nothing to do with the bladder. I found an infiltrated condition, but not an ulcerated process, two or three inches above, not over the bladder, it was not contracted, there was no pain, it was perfectly smooth, and above that I found a polyp. I cannot conceive of a perforation in that portion of the bowel which in twenty-four hours would give evidence that could not have been detected when I saw the patient.

As to the question of sepsis: That diagnosis occurred to me, but I watched the patient through the day. When I examined him at eight o'clock a. m. his temperature was 100° F., at noon it was 101° F., at 7:30 p. m. it was 102° F. Is that the way sepsis deports itself? Not at all. I feel confident that later in the evening his temperature was 103° or 104° F., and have asked that the chart be sent me. In sepsis we have collapse, sweats, etc.,—there is no such history in this case. The man had been sick with fever for three weeks, there were as no wetting of the bedclothing with perspiration, no shock, and there was no evidence of collapse up to the time I left, with a pulse of 120 or perhaps higher. After observing

the patient for twelve hours I said to his doctor, this is a peculiar history, the temperature varying, a gradual rise in the afternoon and evening, reaching 102° F., without any evidence of collapse or sweating, with the history that he has felt languid and sick for two weeks, I cannot help but have it in my mind that this man has typhoid fever and has had it for at least two weeks. At my first examination I believed the trouble was sepsis, but why should he have sepsis? Has not every surgeon or physician in this room witnessed tubercular ulceration of the rectum even to entire destruction of the gut, of the rectum proper, without any peritonitis? I have seen such cases time and again. I saw such an one to-day, and there will never be any evidence of peritonitis unless there is a perforation. If there is a perforation in the case I have reported, where is it from? We would naturally think from the rectum to the bladder; but Doctor Cheatham's question is pertinent here: If there is a perforation from the rectum into the bladder, why does not urine discharge from the rectum instead of fecal matter from the bladder? I confess the case is rather an enigma.

As to Doctor Guntermann's remarks: My examination was very simple, I did not use an instrument, simply inserted my finger into the rectum and pushed it down into this internal fistula or sinus. It certainly could not have gone three inches forward and jumped into the bladder; we could not have a perforation from that cause.

I am impressed that this may be a tuberculous degeneration of the gut, it may be more extensive than I imagine. If this man has not typhoid fever, I am inclined to believe the destruction caused by the ulcerative process in the rectum comes from a tuberculous degeneration. He has lost flesh within the last year, which I failed to mention in my former remarks. He has no other evidence of tuberculosis. Still you may have tuberculosis of the rectum without evidence of it elsewhere. However, that may be, the point I want to impress upon the society is, here is a prominent man that goes without attention in one of our principal cities where there are many good physicians, for two weeks, one of the best physicians having previously attended him, without any reference to either the peritonitis, typhoid fever, sepsis or anything else, simply upon the idea that his rectal trouble is all that exists, that it must be giving rise to any other symptoms present, and which were really not detected at all, as for instance the high temperature, con-

dition of the tongue, tympanites—these were entirely overlooked. I am called, and find the man in a dangerous condition; to what that condition is attributable I must confess I do not know. I simply relate the case which has some evidences of typhoid fever, some evidences of sepsis, and the question is what has caused it?

As to fecal impactions in the Scotch and Irish compared with other people: I have no statistics to present. The fatal case I referred to which occurred in Louisville was a very pointed one, because the patient told us he had lived exclusively upon oatmeal for two or three weeks. In one other instance I have seen fecal impaction from the same cause. We can remove an impaction from the rectum very easily, but from the sigmoid flexure it is quite a difficult matter, and people often die as a result of fecal impactions of the sigmoid. It is easy to overlook fecal impactions in the sigmoid flexure. I have recalled one case where there was an enormous impaction of the sigmoid which was not detected in examinations made by two excellent physicians.

While I do not know the statistics on this subject from the standpoint of the Scotch, I am satisfied of this position from observation, that in the aged oatmeal should be used sparingly and those eating it should be carefully watched. It may be all right for younger people to partake of it. I realize that it has always been regarded as an excellent article of diet, and may be eaten without deleterious effect by those who have no atony of the bowel.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D. ROBERT D. JEWETT, M. D. W. H. WAKEFIELD, M. D.
Editors and Proprietors.

COLLABORATORS.

H. T. BAHSON, M. D., Salem, N. C.	R. L. PAYNE, M. D., Norfolk, Va.
J. HOWELL WAY, M. D., Waynesville, N. C.	H. S. LOTT, M. D., Winston, N. C.
J. ALLISON HODGES, M. D., Richmond, Va.	J. W. LONG, M. D., Salisbury, N. C.
S. WESTRY BATTLE, M. D., Asheville, N. C.	H. A. ROYSTER, M. D., Raleigh, N. C.
GEO. G. THOMAS, M. D., Wilmington, N. C.	ALBERT ANDERSON, M. D., Wilson, N. C.
J. W. P. SMITHWICK, M. D., La Grange, N. C.	

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

ANNOUNCEMENT.

The NORTH CAROLINA MEDICAL JOURNAL has for so many years been identified with the profession in this State (being for the greater period of its career the only medical publication in the State), that any change in its fortunes must be of more or less interest to the physicians of North Carolina. To the older members of the profession, who recall its first editors, its early struggles and its close connection with the State Medical Society, which in fact it was largely instrumental in building up, this interest in the welfare of the Journal is peculiarly strong. To them and to that larger class of younger men who have entered our ranks during more recent years, the present editors promise a Journal in every way worthy of the name.

Appreciating the fact that he who would succeed must first deserve success, it will be the earnest endeavor of the new management to conduct the Journal squarely in line with the best and highest interests of the profession, to furnish an abundance of good reading matter printed and gotten up in the best form. To this end the Journal has been considerably enlarged both as regards the size and number of pages.

TRI-STATE MEDICAL SOCIETY.

Through the kindness of the Secretary, we have an advance copy of the program of the first meeting of the Tri-State Medical Society of Virginia, North Carolina and South Carolina, which will be held in Charlotte, N. C., on January 18th, 1899. A number of prominent members of the profession are down for papers, and judging from the program the first meeting can hardly fail of both profit and pleasure. As had been previously noted the committee of organization very wisely passed a rule admitting only those to membership in the Tri-State Society who were also members of the respective State Societies where they reside. This relieves the fears of some, who were apprehensive lest the new organization should prove detrimental to the State Societies.

It is needless to say that we extend a most hearty welcome to the brethren from our Sister States and shall do all in our power to render their stay among us a pleasant one. We are favorable to all associations for the advancement of medical science and the promotion of fraternal relations among physicians. The South has too few organizations of all kinds, and this is as true of medicine as of anything else. The interchange of ideas and the contact of minds interested in a common subject cannot but be broadening and helpful to all concerned, while the social feature of such a meeting is also ample recompense for the time and money expended. We give on another page a list of the papers to be read, as furnished us by the Secretary.

THE SPREAD OF CHRISTIAN SCIENCE IN THE UNITED STATES.

The notable case of Capt. Harold Frederick, who recently died in England under the ministrations of a so-called Christian Science "healer," has attracted wide-spread attention to the peculiar rites and practices of this sect.

Similar instances to that of Capt. Frederick are almost daily reported in the lay and medical press, and so far as we have seen the practice has met with universal condemnation. Nevertheless this fad seems to have taken strong hold of a certain class in this country, if we may judge from a statement of Carl Norton, made in an address delivered in Brooklyn, in which he says there are 7 Christian Scientist churches in New York City, and 13 more in the immediate vicinity of the Metropolis; 38 churches in the State of New York and about 30,000 adherents of the faith in that State.

He claims that there are one million Christian Scientists in the United States. It seems strange that the American people in most matters practical and hard-headed, should furnish a community favorable to the development and propagation of a "system of cure" that has about as much to recommend it to a rational individual, as has the beating of tom-toms and blowing of cow horns, employed by the savage inhabitants of the dark continent to drive away the evil spirit of disease. In books of travel, or in the reports of missionaries this "system of cure" as practiced by the heathen for the relief of his sick wife or child, is given as one evidence of his ignorance and barbarity. It is difficult to see wherein the modern "healer" of Christian Science serves humanity any better, or has a more reasonable "system of cure" than the medicine man of the savage.

A CURE BY PROXY.

Chas. Broadway Rouss, the New York millionaire, who has made a standing offer of one million dollars to any person, lay or professional, who would restore his eye sight, is threatened with suit by Dr. Geo. H. Cassidy, of Manhattan. It seems that Mr. Rouss employed a blind man to travel around the country visiting specialists or quacks, as the case might be, for the purpose of being experimented upon. In case of the proxy being successful in his search for light, Mr. Rouss was immediately to take the same treatment and deliver the million. Dr. Cassidy claims that he has cured the proxy, hence if Mr. Rouss does not avail himself of the treatment it is his own fault, but he must forfeit the million. Mr. Rouss holds, however, that his proxy's eye sight has not been restored. All now depends on the statement of the proxy, who being blind has a profitable job, which on regaining his sight he must lose. The end of the contest will be looked forward to with interest.

News and Items.

The Philadelphia Medical Journal has decided to discontinue its exchange list after January 1st, 1899.

New York Polyclinic.—Dr. Charles H. Chetwood has been appointed professor of genito-urinary surgery, and Dr. Frederick Whiting, professor of otology.

Another Victim of "Christian Science."—Marjorie Campbell, aged 9 years, of Tacoma, Wash., is the latest victim of "Christian Science." Her parents, being devotees of the "occult science," employed no physician for their daughter, who eventually died of heart-disease.

The Painless Extraction of Teeth.—According to the *Journal of Medicine and Science*, a Rhode Island jury recently decided that a dentist must not advertise to extract teeth by a painless process and then rack patients with excruciating tortures. In a suit for damages in a case of this kind, brought by a woman in Providence, the jury awarded the plaintiff \$500.

Premature Coroner's Verdict.—Rev. J. H. St. Clair, of Decatur, Ala., was reported dead on November 24th, and the coroner having been informed that he had taken 15 grains of morphine, rendered a verdict of suicide by morphine-poisoning. On the following day the Rev. St. Clair, having recovered from his overdose of morphine, to which drug he is said to have been addicted, came to life, and is now reported to be in the enjoyment of good health, despite the fact of having been officially declared dead.

Persistence of Hymen.—Cullinan reports a case of persistence of the hymen in a married primipara, aged 25 years. The points of interest were as follows: (1) The non-rupture of the membrane, although the patient had been married 11 months; (2) the membrane itself was of fibro-elastic consistence and extremely dense; (3) the small opening, allowing impregnation to take place; (4) the abnormal sensitiveness of the parts; (5) an unusually large clitoris; and (6) the obstruction caused during the second stage of labor, with the amount of force necessary to cause rupture. From a medical point of view cases of this kind are of much importance.—*Philadelphia Medical Journal*.

Bullet in His Heart 37 Years.—In the Cincinnati *Lancet-Clinic*, Dr. O. B. Beer, reports briefly the case of a man in Jackson County,

W. Va., who during the civil war was shot by "bushwhackers." The bullet entered the chest posteriorly on the left side, between the second and third ribs, and coursed downward and inward, passing through the left lung and pericardium, and imbedding itself in the wall of the heart, near the lower part of the left ventricle. After being wounded, the man was left on the field for dead, but he eventually recovered and thereafter persisted in the assertion that the bullet was still in his heart. Before his death, which occurred a short time ago, he requested that a necropsy be performed to ascertain the facts. This was done by Dr. Beer and Dr. G. O. Brown, with the results noted.

The Importance of Early Diagnosis in Injuries of the Abdomen is well illustrated in the case of a child that falling from a wagon and striking her abdomen on a brick, died 18 hours afterward. The symptoms of internal injury developed with astounding rapidity, and, though there were no signs of injury to the superficial structures, there was found at the operation, performed 15 hours after the accident, a perforation of the intestines and strangulation of 3 feet of bowel, which had passed through a loop of the mesentery.

"Christian Science" and the Iowa Judiciary.—The Iowa judiciary is evidently free from all taint of "Christian Science," if one may form an opinion from a recent decision. A litigant was so illogical as to seek pecuniary redress for injuries said to have been sustained by falling into an unprotected areaway and to have been "cured" by a practitioner of this latter-day "science." The verdict was that injuries which "Christian Science" could heal must have been wholly imaginary, or so nearly so that their estimation in dollars and cents, or even in cents alone, is impossible. The derisive laughter of interested spectators is said to have accompanied the "unfortunate" litigant as he betook himself from the court-room. Evidently the Court thought, with the miracle-monger whom the plaintiff consulted, that his wounds and bruises were merely "mortal thoughts" and nonexistent as soon as he chose to make them so.

Koch's Disappointment.—The *British Medical Journal* quotes from *La Tribuna* of Rome a somewhat amusing story about Koch, who has been studying malaria in the hospitals of the Eternal City. In the Santo Spirito he came across a patient with pernicious malaria, admitted apparently in a dying state. He ask that "this body" might be kept for his examination. The next day he went

intending to make the necropsy, and was amazed to find a living man sitting up in bed to all appearances cured. The "corps" greeted the professor with a significant smile. The cure had been wrought by the intravenous injection of quinine, according to Professor Baccelli's method.

A Nurse's Knowledge.—The advantages accruing to the modern trained nurse from a familiarity with technical medical terms are shown by the recent remark of a nurse in attendance upon a man suffering from vesical retention. The patient had for some days been obliged to make several futile attempts in each case before accomplishing the function of micturition. Finally relief came, and the nurse saluted the doctor at his morning visit with the cheerful words, "He passed water today *by the first intention.*"—*Boston Medical and Surgical Journal.*

Rudolph Virchow, German Scientist.—Honors continue to fall thick and fast about the distinguished discoverer of the cellular theory in pathology, rector of the University of Berlin, and early advocate of international disarmament. He is one of those rare men who seem to have time for everything; with all his pressing duties, he is constantly rushing to various parts of Europe to attend meetings scientific societies of which he is a member.

Only the other day he made a flying trip to London to partake of a formal dinner given in his honor by the great medical men of the United Kingdom.

The political economist who irritated the brusque Bismarck into challenging him to a duel; the scientist on whom the French Government conferred the rank and insignia of a commander of the Legion of Honor two years ago; the surgeon who received from admirers in all parts of the world a gold medal weighing nearly six pounds, and having an intrinsic value of \$1750, on his seventieth birthday; the university professor, editor, technical writer and broad humanitarian, is, today, at the advanced age of seventy-seven, one of the foremost among the really great men of the world.

Necrology.

DEATH OF DR. JNO. B. HAMILTON.—Dr. Jno. B. Hamilton, editor of the *Journal of the American Medical Association*, and professor of surgery in the Rush Medical College, and in the Chicago Polyclinic, died at Elgin, Ill., on Dec. 24th, 1898, aged 51 years.

Dr. Hamilton was a man of international reputation, being for the greatest part of his professional career connected with the Marine Hospital Service in which he attained the position of supervising Surgeon General. In 1891 he resigned this position and withdrew altogether from the Government service in 1896.

In addition to being an editor and professor, he was at the time of his death, superintendent for the Illinois State Asylum for the Insane, and consulting surgeon to several Chicago hospitals. He died in the prime of life of peritonitis.

Sir William Jenner, who recently died in England, was the grandson of the discoverer of vaccination, and the most trusted medical adviser of the Queen. For many years he was the acknowledged leader of the profession in England; to him being chiefly due the credit of having finally placed beyond all doubt the non-identity of typhus and typhoid fever. He was a great worker, and for many years his professional income is said to have been between \$50,000 and \$75,000 per annum. He spent the last ten years of his life in retirement.

Programme of the Tri-State Medical Society.

WEDNESDAY, JANUARY 18TH, 1899.

11 a. m.—Opening of the First Annual Session.

1. Divine Invocation—Rev. H. F. Chreitzberg, D. D., Charlotte, North Carolina.
2. Address of Welcome on behalf of the Profession and the Citizens of Charlotte—Col. H. C. Jones, Charlotte, North Carolina.
3. Response to the Address of Welcome—Dr. Hugh T. Nelson, Charlottesville, Virginia.
4. Address by the President—Dr. W. H. H. Cobb, Goldsboro, North Carolina.
5. Executive Session.
Reports of Officers.
Reports of Committees.
6. Registration of Members.

PAPERS.

1. Purposes of Tri-State Medical Organizations—Dr. Paul B. Baringer, University of Virginia, Virginia.
2. Pseudo Membranous Enteritis—Dr. J. M. Fladger, Summerton, South Carolina.
3. Cold as a Remedial Agent—Dr. E. B. Glenn, Asheville, North Carolina.

4. Lithemia—Dr. J. N. Upshur, Richmond, Virginia.
5. Blood-washing and Blood-letting—Dr. A. B. Knowlton, Columbia, South Carolina.
6. The Early Recognition of Pulmonary Tuberculosis and of the Pre-Tubercular State—Dr. Charles L. Minor, Asheville, North Carolina.
7. A Plea for the Earlier Recognition of Pulmonary Consumption—Dr. Louis F. High, Danville, Virginia.
8. Food and Its Auxiliaries—Dr. F. W. P. Butler, Edgefield, South Carolina.
9. The Treatment of Urethral Discharges—Dr. James M. Parrott, Kinston, North Carolina.
10. Remarks on the Relation of Diet to Hay Fever and Asthma—Dr. John Dunn, Richmond, Virginia.
11. Typhoid Fever; Diagnosis and Treatment—Dr. Rolfe E. Hughes, Laurens, South Carolina.
12. Reports of Cases, etc.—(Followed by general discussion).
13. Appendicitis Complicated with Intestinal Perforation—Dr. George W. Long, Graham, North Carolina.
14. Diagnosis and Treatment of Tubercular Peritonitis—Dr. W. L. Robinson, Danville, Virginia.
15. Report of Cases of Rupture of Uterus during Pregnancy—Dr. Francis D. Kendall, Columbia, South Carolina.
16. Dystocia—Dr. David A. Stanton, High Point, North Carolina.
17. Vomiting in Pregnancy—Dr. R. S. Martin, Stuart, Virginia.
18. The Treatment of Retained Placenta in Abortion—Dr. J. C. Harris, Anderson, South Carolina.
19. Application of Electricity to Diseases of Women—Dr. W. T. Woodley, Charlotte, North Carolina.
20. Material Aids in the Management of the First and Second Stages of Labor—Dr. James Albert Anderson, Danville, Virginia.
21. Tubal Pregnancy—Dr. Virginius Harrison, Richmond, Virginia.
22. Abdominal Palpation Versus Vaginal Examination in Obstetrical Practice—Dr. John F. Winn, Richmond, Virginia.
23. Ovaritis; Acute and Chronic—Dr. L. G. Frazier, Youngsville, North Carolina.
24. Diagnosis and Treatment of Cancer of the Breast—Dr. Hunter McGuire, Richmond, Virginia.
25. The Importance of Early Operation in Appendicitis—Dr. John Whitehead, Salisbury, North Carolina.
26. Surgical Treatment of Duodenal Ulcer—Dr. Hugh M. Taylor, Richmond, Virginia.
27. Drainage in Abdominal Surgery—Dr. J. W. Long, Salisbury, North Carolina.

28. Sciatica and Its Treatment—Dr. Samuel A. Lile, Lynchburg, Virginia.
 29. Report of Two Cases of Nephrectomy—Dr. George Ben. Johnston, Richmond, Virginia.
 30. The Report of a Case of Complete and of Partial Ophthalmoplegia of the Right Eye—Dr. Charles W. Kollock, Charleston, South Carolina.
 31. The Eye as a Causative Factor in Functional Nervous Diseases—Dr. W. H. Wakefield, Charlotte, North Carolina.
 32. The Present Status of Laryngology and Rhinology—Dr. W. Peyre Porcher, Charleston, South Carolina.
 33. Subject not yet received—Dr. J. A. White, Richmond, Virginia.
 34. Brief Report of Cases—Dr. J. Stephen Brown, Salisbury, North Carolina.
 35. Treatment of Fractures—Dr. Hugh T. Nelson, Charlottesville, Virginia.
 36. Subject not yet received—Dr. S. C. Baker, Sumter, South Carolina.
 37. Some Practical Points in the Treatment of Diphtheria—Dr. Ramon D. Garcin, Richmond, Virginia.
 38. What Medicine Owes to Bacteriology—Dr. E. C. Levy, Richmond, Virginia.
 39. The Medical Examining Boards of North Carolina and Virginia; Their Relation to Each Other and the Profession—Dr. A. S. Priddy, Keysville, Virginia.
 40. State Institutions for Epileptics—Dr. William Francis Drewry, Petersburg, Virginia.
 41. Examination of Feces as an Aid to Diagnosis—Dr. H. Stuart MacLean, Richmond, Virginia.
 42. The Influence of Chronic Nasal Occlusion on Cerebration—Dr. Dirk Adrian Kuyk, Richmond, Virginia.
 43. Diagnosis of Renal Calculus—Dr. Moses D. Hoge, Jr., Richmond, Virginia.
 44. The Practical Treatment of Carbolic Acid Poisoning—Dr. Stephen Harnsberger, Catlett, Virginia.
- Unfinished Business.
 Papers previously announced, and still unused.
 Volunteer papers.
 Adjournment.

Book Reviews.

Keen on the Sugery of Typhoid Fever. The Surgical Complications and Sequels of Typhoid Fever. By WM. W. KEEN, M. D., LL. D., Professor of the principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia; Corresponding Member of the Sociere de Chirurgie, Paris; Honorary Member of the Société Belge de Chirurgie, etc. Octavo volume of about 400 pages. Cloth, \$3.00 net. Published by W. B. Saunders, Philadelphia, Pa.

The name of the author is a sufficient guarantee for the thorough and practical character of this work, while the subjects dealt with lose none of their interest when we remember that of the fatal cases of typhoid fever, something like 75 per cent. are due to the various medical and surgical complications.

Dr. Keen has written the only complete treatise upon the Surgical Complications of Typhoid Fever in any language; his conclusions being based upon an exhaustive analysis of 1700 cases. The chapter on intestinal perforation is alone worthy of the thoughtful consideration of every physician, while the careful and detailed treatment of other and less common sequels and complications make the work one of great value to the specialist as well as the general practitioner. A special feature is a chapter on Ocular Complications, by Dr. Geo. E. de Schweinitz. For the rest, the style is clear and concise and the print most excellent, producing a work, the perusal of which, is highly instructive and agreeable.

Electricity in the Diagnosis and Treatment of Diseases of the Nose, Throat and Ear. By W. SCHEPPEGRIEL, A. M., M. D. Ex-Vice-President American Laryng., Rhin. and Otol. Soc.; Vice-President New Orleans Electric Soc.; Co-Editor Annals of Otol., Rhin. and Laryng. With 161 illustrations, 8vo., pp. xiv plus 398, \$4.50

This, the first systematic treatise on the application of electricity in the diagnosis and treatment of diseases of the nose, throat and ear is a profusely illustrated volume from the press of G. P. Putnam's Sons. Like all other publications of this house, the book itself is to be admired on account of its clear type, delightful paper and clean print. The work is divided into four parts; the first part discusses the physics of electricity from a medical standpoint; the second treats of methods of examination; the third is devoted to various methods of applying electricity, such as cautery, electrolysis, etc.; the fourth takes up the various diseased conditions of nose, throat and ear in which electricity is indicated as a remedial agent, and shows how to apply it.

The profession owes a debt of gratitude to the talented and pains-taking author for this volume, and he is to be congratulated on the result of his labors. Dr. Scheppegrill has long been known as an industrious worker in this therapeutic field and his conservatism and fairness is

shown in his writings. He does not allege for electricity more than justly belongs to it and is frank to admit that it is useless in certain conditions. The work show the hand of a master and commends itself to the general practitioner or surgeon who uses electricity as well as to the specialist.

A Text-Book of Pathology. By ALFRED STENGEL, M. D., Instructor in Clinical Medicine in the University of Pennsylvania; Physician to the Philadelphia Hospital; Clinical Professor of Medicine in the Woman's Medical College of Pennsylvania; Physician to the Children's Hospital; late Pathologist to the German Hospital, Philadelphia. Handsome octavo volume of 848 pages. Nearly 400 illustrations, a number of them in colors. Cloth, \$4.00 net. Half Morocco, \$5.00 net. Published by W. B. Saunders, 925 Walnut Street, Philadelphia.

This work is largely the outgrowth of the author's method of teaching and demonstrating clinical pathology and is therefore admirably adapted for the use of students and practitioners of medicine. All necessary details of technique are omitted and but small space given to controversial matters and hence it presents in very concise form the essentials, facts of clinical pathology and particularly of pathological physiology, all of which renders it a work of unusual value to the student and general practitioner. This volume is divided into two parts, each of which is profusely illustrated. Part I, is devoted to General Pathology and is in eight chapters. Part II covers the subject of Special Pathology beginning with diseases of the blood and taking up separately all the different organs of the body.

Upon the whole it most thoroughly fulfills the purposes for which it was intended.

The Hygiene of the Voice. With 27 illustrations. By THOMAS F. RUMBOLD, M. D., Member of the St. Louis Medical Society, Permanent Member of the American Medical Association, etc. St. Louis. 1898.

The brochure of 106 pages springs from the author's experience with singers and other professional voice users, and is a good, practical, common-sense presentation of the subject in non-technical terms. Its pages are well illustrated and the various pathological conditions of nose and throat that exercise injurious influences over the voice are clearly pointed out and their remedy suggested. Any good text book on nose and throat contains nearly everything found in this brochure but the compact grouping is convenient and the matter is clearly stated.

Review of Medical and Surgical Progress.

New Treatment of Diabetes Mellitus.—Dr. A. Moyer, of New York, in a paper read before the Metropolitan Medical Society and published in the *Medical Record*, advances a new theory as regards the etiology and treatment of Diabetes Mellitus. After reviewing the older ideas of the cause of Diabetes and recalling the fact that in many cases the most careful examination after death fails to show any demonstrable lesion to which importance can be attached, he holds the view of a special bacterium or its ptomain as being the cause of the disease. In support of this theory he calls attention to the recent claim of Lediew, Naunyn and others, that Diabetes Mellitus is a contagious malady. As a logical sequence, Dr. Moyer has instituted an antiseptic treatment with what he claims most satisfactory results.

To quote from the author :

"My theory supposes the invasion of the organism by these bacteria, or their presence in it. In perfect health they are prevented from exercising their injurious influence by the normal resistance of the economy, or perhaps by some ferment physiologically produced by metabolic changes in certain organs of the body acting as an antitoxin against these bacteria.

"If this presumption be correct, then the ingestion of a suitable bactericide in sufficient quantity to counteract the effect of this bacterium should manifestly show an amelioration of the pathological symptoms of diabetes mellitus.

"After repeated experimentation I am able to report that the bichloride of mercury in suitable doses fulfils this indication.

"My method of treating these cases is as follows: A history of the case is obtained and the patient weighed. The quantity of urine passed in twenty-four hours is collected, measured, the specific gravity taken, quantity of sugar estimated, and other abnormal characteristics are noted. If the urine fails to react to Gerhardt's test, the patient is then put on an antidiabetic diet for two weeks, during which time he takes the bichloride. I begin with a dose of one-twelfth of a grain three times a day, and in two or three days increase it to one-tenth of a grain. In a week's time my patient is taking one-sixth of a grain three times a day, directly after meals, well diluted with water. This is the maximum dose. None of the symptoms of mercury poisoning showed themselves in any of my

cases. A rather brisk catharsis takes place the first few days, especially if the patient previously suffered from constipation; and this diarrhoea I regard as favorable. At the end of two or three weeks my patients have shown a marked reduction of sugar and a decided improvement in their general condition. As soon as I have obtained this result, the dose of mercury is diminished until about one-fourth of a grain in divided doses is taken daily. Or I may still further reduce the dose. (The diet now is not so severely restricted.) A little bread and a tart apple are permitted.

"The urine is examined daily or every other day for the first two or three weeks; that voided in the evening being tested.

As the percentage of sugar diminishes, the dose of bichloride is decreased accordingly and the diet is not so strongly restricted. From time to time the drug is suspended. Even though the sugar has entirely disappeared, I continue to give the bichloride, but in much smaller dose, about one-sixteenth of a grain three times a day.

"Diabetics with syphilitic history are not included in this report. But I wish to mention that diabetic patients with a history of lues showed a more marked and rapid improvement under the mercurial treatment."

Dr. Moyer reports in detail the histories of eleven cases of diabetes treated in the above manner, all of which showed a most marked and prompt improvement.

The Philadelphia Medical Journal gives the following facts and figures regarding the mortality from disease in the two last American wars.—While the statisticians are trying to settle the question, how far our nation has advanced in the art of war in the last 35 years, they may find some suggestive figures in a comparison of the total deaths in battle and in camp respectively during certain parallel periods in the Civil War and the war with Spain. In the latter war we had only one trial at arms which was worthy the name. That was the fighting on the way to Santiago, at El Caney and San Juan, July 1-3, 1898, when, of about 16,000 men engaged at various points, 239 were killed, or nearly $1\frac{1}{2}$ per cent. At the much more sanguinary battle of Gettysburg, fought July 1-3 1863, of some 80,000 men engaged, 2,834 were killed, or more than $3\frac{1}{2}$ per cent. Measured by this standard alone, our progress would appear to have been rapid. On the other hand, the medical records for the five months of the Spanish war, May to September 1898,

have their nearest parallel in the corresponding months of 1861, as the staff in both instances found itself plunged into war with almost no preparation, and compelled to recruit its personnel and provide and distribute its supplies in extraordinary haste. The following table tells its own story:

Months.	Strength of Army, 1861.	Percentage of Deaths from Disease, 1861.	Strength of Army, 1898.	Percentage of Deaths from Disease, 1898.
May	16,161	.00118	151,685	.00046
June.....	66,950	.00148	159,793	.00070
July.....	69,118	.00281	203,250	.00215
August.....	109,054	.00303	190,347	.00408
September.....	162,217	.00270	130,763	.00245
Average	84,700	.00224	167,168	.00197

This shows a reduction in deaths from disease from a trifle above one-fifth of one per cent. to a trifle below one-fifth of one per cent., not a very noteworthy difference. Plainly, in those branches of the art of war which deal with the care of troops in the field we have much more to learn than in the strategical branches. It is a matter of pride with an officer of the line to accomplish his ends without letting his men fall into a hostile ambush. It should be equally the pride of the staff to shield the helpless soldiery in the camps and on the transports from the foes which lurk there unseen and too often unsuspected.

The Difficulty of Removing Foreign Bodies From the Bronchi.—

3.—Failing in an attempt to remove a foreign body from the right bronchus by low tracheotomy, Curtis decided to carry out Bryant's suggestion and perform a posterior thoracotomy. After resecting portions of the fourth, fifth, and sixth ribs, at their vertebral end, the pleura was detached from the contents of the posterior mediastinum and posterior chest-wall. By this means the bronchus was easily approached, but, owing to the exaggerated respiratory movements of the lung, subsequent to the detachment of the pleura, it was found difficult to attack the bronchus, and, as the patient's condition was not encouraging, the wound was packed and the operation suspended. On the following day under anesthesia the bronchus was opened, but the foreign body could not be detected with the forceps. An attempt was made, after locating it with the fingers, to remove it by cutting directly through the lung-tissue with a cautery-knife. Even with this incision the foreign body, which was a

seed vessel of some plant, transfixed with a pin, could not be grasped with the forceps. A draining tube was inserted and the operation discontinued. The patient succumbed to pneumonia 48 hours later. As to the technic it is best to fashion the flap with its base toward the scapula, contrary to Bryant's own method, as the attachment of its base to the scapula allows of the flap moving with this bone and thus ensuring more room. Removal of the body through an incision in the lung-tissue, after the pleura is sutured to its surface is preferable to too prolonged attempts to pass instruments through the bronchi. The wound should always be drained and sufficient gauze should be packed around the tube to protect the wound from infection.—*Annals of Surgery*.

The power of resisting shock and infection varies widely, as is well known, among different races and among different people of the same race. The Irish are thought by some to be abnormally susceptible to shock, infection or injury, whilst Oriental races are almost absolutely impassive under like conditions. An instance of unusual vitality is reported by Bidie, of the Indian Medical Service, in the *Indian Lancet* of November 1st: A native boy, aged 15, was gored by a bull in the abdomen, making a wound through which the intestines protruded and tearing the gut in several places. The coils of intestine were smeared by the natives *with cow-dung*, covered with a piece of cocoanut and some leaves, and the boy was carried 5 miles in a country cart over rough roads, reaching the hospital about 6 hours after the time of injury. The parts were cleansed, the intestines sutured, the abdomen was closed and the wound dressed antiseptically. Shock was entirely absent, and the patient made an uneventful recovery, with rise of temperature only on three occasions after the operation.

Unfortunately for both patient and surgeon, constitutions of such staying power are unusual, but this makes all the more imperative the cultivation of such surgical judgment as will enable one to predict with a fair amount of accuracy a patient's capacity to withstand surgical shock before undertaking operations of expediency. There is some justification for the much-abused saying that such a doctor "knows the constitution of the family;" long acquaintance does not help us to understand the personal equation. It is probable that more earnest, conscientious effort on the part of the surgeon, exercised every day in every case, to try to estimate the physical peculiarities of patients, would succeed in training the faculties so

that the limits of intervention might, in certain cases, be extended, and in other cases sad accidents might be avoided.—*Philadelphia Medical Journal*.

Dangers to Life in Typhoid Fever.—In discussing the treatment of typhoid Philips (British Medical Journal) calls attention to some of the more common dangers to life :

(1) Death from general causes, toxemia, hyperpyrexia, pyrexia, heart-failure and asthenia ; (2) death from local lesions special to typhoid fever, perforation, hemorrhage, etc. ; (3) death from inter-current affections. Toxemia is probably the most common cause of death, and in order to lessen its dangers the antiseptic method of treatment, having as its object the destruction of the toxins before their absorption, has been adopted. The most useful antiseptic is mercuric chlorid. Salol is also useful and benefit is derived from a daily enema of some disinfectant solution, especially when constipation exists. Hyperpyrexia is nearly always due to some local affection and treatment must be directed to the local condition, the temperature in the meanwhile being lowered by sponging, quinin, etc. Pyrexia is best treated by the cold bath. When the bath cannot be used, sponging with tepid or cold water, effusions, or wet packs, are better than drugs. Quinin is the only drug that should be given. Cardiac failure, which is usually due to changes in the myocardium resulting from pyrexia and toxins, is indicated during life by feebleness of the heart-impulse and cardiac sounds and the condition of the pulse. In another class of cases in which death is due to failure of the circulation there is a natural want of blood in the body, arising from failure in the blood-making function. In these cases death occurs from mere bloodlessness. The proof that the symptoms of typhoid are sometimes due to want of blood are : (1) If the artery of a patient dead of typhoid fever, after these symptoms, be opened, it will be found singularly empty of blood ; (2) there is an enormous decrease in the number of red corpuscles and in hemoglobin throughout the course of the disease. There is also a great decrease in leukocytes and in the fibrin of the blood. The sudden rises in the number of corpuscles sometimes observed in typhoid fever are attributed to losses of fluid by sweats and diarrhea ; (3) the symptoms of rapid pulse, increasing listlessness and debility, with fever and a perfectly clear mental condition, are those that follow want of blood. The pyrexia and toxins in the blood, the cloudy swelling of the internal organs, the special affection of the

blood-making organ, the spleen, and the frequent drain of material from diarrhea, hemorrhage or profuse sweats are all causes that can act in the production of blood-deterioration. There occurs also in typhoid fever a tendency for the venous side of the circulation to be full of blood, while the arteries are unduly empty. In the matter of treatment of the circulation, the one essential is to prevent waste of material through diarrhea, hemorrhage, or profuse sweats, and to supply as much nourishment as can be digested and absorbed. Milk should be the staple diet. In cases in which vomiting or diarrhea exists, beef-tea or meat extracts may be substituted. Stimulants are not necessary as a routine treatment. Opium is admissible, to secure sleep. In cardiac weakness digitalis, strychnin, and caffein can be used carefully. Ether, ammonia, sumbul and diffusible stimulants are often useful. In order to keep up the volume and composition of the blood, sweats should be checked by belladonna and diarrhea by enemas. Cold water may be given freely. Oxygen-inhalations are sometimes useful and solid food should be given after 3 days without fever at any time within the 24 hours. Saline injections are useful when there are elements of profound bloodlessness and weakness, preferably injected into the basilic vein by means of a simple cannular drainage-tube and funnel. Two pints at a temperature of from 100° to 115° may be introduced. Operation is indicated in all cases in which perforation can be diagnosticated. Hemorrhage is a bad omen and in its treatment opium may be given freely. Turpentine is useful, but 5 minim doses of the tincture of hamamelis are most to be relied upon. An ice-bag to the abdomen is useful. In the treatment of diarrhea enemas of starch, with or without opium, are more useful than drugs given by the mouth. Bismuth salicilate in 30-grain doses 3 or 4 times a day should be given, however. Constipation should be treated by enemas. When tympanites is present and the abdomen is soft and doughy, as well as swelled, diffusible stimulants are useful; when the abdomen is tense, hot fomentations and the passage of a long tube into the rectum, with the administration of food in small quantities, usually bring relief.—*Philadelphia Medical Journal*.

Septicemia Treated by Venesection and Infusion of Salt-Solution.—Young (*Maryland Medical Journal*, November 19, 1898) reports the case of a boy, aged 15, who had had recurrent attacks of appendicitis since early childhood, but who had previously recov-

ered under use of cathartics or other simple measures. Dr. Halsted was called to see the patient after an attack of 5 days' duration. The abdomen was distended; there was tenderness over the sigmoid flexure and hypogastrium; no tenderness of the iliac fossa, but a boggy mass was felt in the pelvis. A diagnosis of probably appendiceal abscess was made and celiotomy performed. Turbid fluid was found in the abdominal cavity, the intestines were adherent, and after breaking them up a large abscess was found, in which lay a necrotic perforated appendix. The pus was evacuated, the appendix removed, and gauze-packing inserted. After the operation the temperature gradually rose, and the pulse became more rapid. The next morning the temperature had reached 105.8° F., the pulse was 156, and it was evident that the condition was one of septicemia. Under cocain-anesthesia the right basilic vein was opened, about 2 ½ ounces of blood removed, and 1 ½ quarts of normal salt-solution transfused. The temperature immediately fell, and the general condition became much better. The improvement did not remain permanent, however, and 24 hours later another transfusion of 2 ½ quarts was made. The temperature and pulse both dropped almost to normal, and after that there was never any great concern about the boy's condition. The subsequent convalescence was tedious but uneventful.

Hemophilia—Dodd relates a case of hemophilia occurring in a boy aged 13 years, with six brothers and 7 sisters. The brothers had all bled to death. The girls were alive and well; two were married and had borne children. A maternal uncle had died from hemorrhage from the stomach and a maternal aunt had died at the age of 14 from bleeding. The patient gave a history of many swellings in his joints following slight injuries. He had bled from the gums and nose and the roof of the mouth. Slight injury to the right thigh had resulted in a large fluctuating swelling that was tender to touch, while the overlying skin was red and thin. The patient was markedly anemic. An incision was made through the skin, and a quantity of clot and some purulent fluid escaped. In spite of packing and pressure and internal administration of styptics the bleeding continued and the boy grew rapidly weaker. Bleeding from the nose and gums took place also. The stomach rejected everything. Death seemed inevitable. At this juncture inhalations of oxygen in large doses were resorted to. Within 24 hours the vomiting and bleeding stopped and the boy

began to take milk freely. Recovery was eventually complete.
—*The Philadelphia Medical Journal*.

In the Annals of Surgery (Nov. 1898) Operation for Radical Cure of Hernia.—Bull and Coley report the results of observations in 400 cases of hernia operated upon since 1895, at the hospital for the Ruptured and Crippled. The profusion of material that presents itself at this institution is such as to afford opportunities of observing and treating hernias of all varieties and at all stages; from September, 1890, to September, 1897, 34,271 cases of hernia were treated. The results obtained in the series of 400 cases may be summed up as follows: As to the duration of cure 236 were well beyond one year, and 142 beyond two years; the mortality was less than 1 per cent. Primary union occurred in 373 cases; relapses in 6 cases. The Bassini method was employed in 342 cases, the remainder being treated by various other methods. The two most serious complications were pneumonia and wound-infection, and as for the latter, the experience of Bull and Coley seems to coincide with that of Mikulicz, who proved that the danger of infecting the wound increased with length of the operation; that while the hands may be sterile at the beginning they seldom remain so until the end of a prolonged operation. The results speak unqualifiedly in favor of an absorbable material for the buried sutures, for which purpose chromicized kangaroo-tendon is to be preferred. In those cases in which non-absorbable material was used sinuses almost invariably developed. A careful analysis of 360 cases of relapse shows that in those cases that have remained well beyond one year, the chances of relapse are much diminished. Thus in 64.5 per cent. relapse occurred during the first six months; in 80 per cent. during the first year, and in only 20 per cent. after the first year. Therefore, if a rupture is sound at the end of one year after operation, there is a reasonable prospect of permanent cure, while if it remains well for two years, the chances of relapse are exceedingly small. As to the choice of methods the evidence is strongly in favor of the Bassini method, which has many advantages over the so-called Halsted method: The technic is less complicated, and the operation requires less time, while the published results of Halsted are inferior to those of Bassini. Stress is laid upon the importance of performing the operation as rapidly as possible, thus permitting of the least amount of bruising of the tissues, and thereby increas-

ing the chances of primary union. Since 1888 Bull and Coley have performed 618 Bassini operations, with only 12 relapses.

Cocaine Anesthesia.—In *The Medical News* of recent date, Dr. John A. Wyeth accounts for frequent unsatisfactory results obtained in the use of cocaine as an anæsthetic, and describes a method of using it which seems to meet the requirements. He invariably uses a 4 per cent. solution of cocaine, made in a saturated solution of boracic acid, for cutting through the skin. He introduces this in very minute quantities—a minim at a time—immediately under the epidermis into the sensitive or malpighian layer of the skin. This whitens the area with which it comes in contact, and provided it be in a part where the circulation is not readily controlled, he at once makes an incision with a sharp pointed knife as far as the anæsthesia has spread. The needle is then inserted one-quarter of an inch from this point, and another minim of the solution injected at the same level. Proceeding thus, an incision of the requisite length can be made through the skin and coreum into the subcutaneous areolar tissue. On account of the lack of sensation in the subcutaneous areolar tissues, a weaker solution may now be used, and poisoning thereby be avoided, as absorption takes place freely in this tissue. The following are the Schleich solutions which the author recommends:

No. 1, Strong.

- R Cocaine muriate, gr. iij.
- Morph. muriate, gr. ii-v.
- Soda chlorid., gr. iij.
- Aq. sterilized dest., or saturated solution of boracic acid, q. s. $\frac{3}{4}$ 3 2-5.

No. 2, Normal.

- R Cocaine muriate, gr. iss.
- Morph. muriate, gr. 2-5.
- Soda chloride, gr. iij
- Aq. sterilized dest., or saturated solution of boracic acid, q. s. to fl. $\frac{3}{4}$ ij.

No. 3, Weak.

- R Cocaine muriate, gr. 1-6.
 - Morph. muriate, gr. 2-6.
 - Soda chlorid., gr. iij.
 - Aq. sterilized dest., or saturated solution of boracic acid, q. s. fl. $\frac{3}{4}$ 3 2-5.
- Medical Review of Reviews.*
-

The Action of Drugs in Children.—Dr. J. B. McGee says that while as few drugs as possible should be given to children, when indicated they should be used freely. We should know what

a drug cannot do as well as what it can do. In most children the tendency toward recovery in slight ailments is very strong. Medication should be simple. Medicine eliminated rapidly should be frequently repeated; such as alcohol, nitroglycerin, the ammoniacal salts, aconite, and belladonna. Digitalis is cumulative and should be given at wide intervals. Pills and powders are not easily taken by young children. Active principles and remedies in small bulk are to be preferred. Salol and sulphonal in pill or tablet may pass through the intestinal canal intact. Glycerin is a better vehicle than syrup, especially in summer. With the exception of opium and its alkaloids, larger doses may be given than are usually stated. The salts of sodium are to be preferred to those of potassium. Care is necessary in giving opium, with the exception of paregoric, ten drop of which for each year is a safe dose. Dover's powder should not be given to children. Chloral is a good sleep producer. The bromides are very slowly eliminated. Sulphonal and trional are safe hypnotics for children. Belladonna is exceptionally well tolerated in children, and may be given in two-drop doses for each year, even sixty drops a day have been given to child two or three years old. Alcohol is one of the best heart stimulants and seldom disagrees with children. Strophanthus is to be preferred to digitalis. Caffeine and cocaine are not well borne, but strychnine is. Children stand the preparations of mercury and arsenic well. Cold is a good antipyretic, but phenacetin and acetanilid may be used, and also quinine in malaria.—*Medical Standard*, October, 1898.

Eye, Ear, Nose and Throat Department.

In charge of W. H. WAKEFIELD, M. D., Charlotte, N. C.

When are Cold or Hot Applications Indicated in Eye Diseases ?

ANNALS OF OPHTH.

Cold applications are indicated in the course of acute, catarrhal conjunctivitis, in the inflammatory stage of trachoma, in purulent ophthalmia and in pain after operations on the conjunctiva.

In interstitial keratitis, acute iritis and irido-cyclitis either cold or warm applications may be made. In exudative iritis it is much better to use hot applications. The pain of glaucoma and suppuration of the eyeball is best treated by heat.

[As a rule I find superficial inflammations best treated by cold, but in the deep seated inflammatory troubles hot applications afford more relief. There are exceptions, of course.—Ed.]

The Open Wound Treatment of Cataract Operation.—Johann Brothen, of Norway, in a paper abstracted by the *Annals Ophth.*, advises that eyes from which cataracts have been removed be not bandaged and reports cases successfully treated in support of his position. The movements of the eyelids do not hinder the healing of the corneal wound and a fixative bandage is harmful.

[Better no bandage than a bad one but I'm not ready to treat cataract cases as above.—Ed.]

Eneuciation Under Schleich's Infiltration Anesthesia.—Dr. L. Weiss, (*Annals of Ophth.*) recommends infiltration for eneuciation. He reports five cases in which he removed the eyeball under injection of Schleich's formulas for anesthesia. The operations were free from pain, and cutting the optic nerve did not give rise to the sensation of light. Infiltration is made by injecting one-half hyperdermic syringe-ful beneath the conjunctiva in several places around the eye and by making deep injections toward the optic nerve. The use of the long curved needles of Schleich is recommended for infiltrating the nerve sheath.

He thinks this form of anesthesia indicated in fresh ocular wounds and intraocular tumors except where the latter extends beyond the globe.

Enlarged Tonsils and Adenoids, is the subject of an able paper by Dr. Wink, of Tacoma, Wash., published in *The Medical Sentinel*.

The author calls attention to the fact that while the signs of the presence of these growths are present in the faces of the little sufferers they are often overlooked by parents and physician. The prominent symptoms are mouth breaking, in some cases constant, in others occasional. Choking and snoring during sleep are always present. The child starts up in its sleep, struggles for breath, sometimes sitting upright in bed in its struggles. The voice has a peculiar tone and there is difficulty in pronouncing words containing the letter M. On examination a diagnosis of enlarged tonsils is easily made, but adenoids are not seen without a head light and rhinoscopic mirror. Earache and deafness are frequent, and it is the deafness that causes many parents to consult the doctor. The only curative treatment is operative, and chloroform anesthesia is advised, with the patient lying on the back, the face turned to the light.

Thorough removal of the tonsils by means of the tonsillotome and of the adenoids by Gottstein's curette are advised. In the experience of the author the results of the operation were always satisfactory, the evidences of benefit being seen at once.

Mouth-Breathing in Children, Particularly as a Result of Adenoids.—Hobbs, *Atlanta Medical and Surgical Journal*—The author advocates a complete extirpation of the adenoids, though not absolutely necessary since the remaining part of the growth atrophies when the larger part has been removed and nasal breathing established.

Constitutional treatment is of service in the majority of cases after the adenoids have been removed.

Nasal Catarrh.—Ed. Punction, *Georgia Journal of Medicine and Surgery*.—The author arrives at the following conclusions:

1. That impairment of ventilation and drainage of the nasal fossæ are the most important elements in the treatment of this affection.
2. That the touching of opposing surface is one of the most important pathological factors.
3. That the line of treatment is largely surgical and the chief object aimed at is to cause the deflection more to conform as nearly as possible to the shape of the ideal standard.

Antiseptic Treatment of Nasal Catarrh.—R. C. Cothingham, *Alkaloidal Clinic*.—The author takes the position that all cases of

nasal catarrh are due to the pressure in the nose of some vegetable parasite, and that the inflammation of the mucus membram is due to the pressure of the "catarrhal" bacteria.

In the treatment great stress is laid on cleanliness and disinfection. He has devised an improved nasal irrigator by means of which he floods the nose with an alkaloid antiseptic solution.

After cleansing he prescribes an ointment made of white vaseline, Tanic acid, salicylic acid, oils of eucalyptus and gaultheria.

A piece the size of a pea is passed up each nostril on a feather or finger tip. Several cases, including the different varieties of catarrh are cited to illustrate the treatment. Out of 2,000 cases treated a cure is claimed in 98 per cent.

Protargol in Conjunctivitis With Profuse Discharge.—D. A. Davies, of Paris, (*Annals of Ophth.*) considers from a very large experience with protargol, that it is an antiseptic agent which produces quick and prompt healing of inflammations of the conjunctiva. On account of protargol causing absolutely no irritation, it can be used in a 50 per cent. solution without causing disagreeable symptoms. (?) As a rule, the author permits patients to drop a 5 per cent. solution in the eye from 2 to 4 times daily; for local applications by the brush, he uses 20 per cent. to 50 per cent. solution once daily or every other day, according to the grade of inflammation. For the treatment of purulent conjunctivitis he cauterizes the conjunctiva twice daily with the 20 per cent. solution and failing to obtain satisfactory results from this he uses 50 per cent. solution, reducing the strength of the solution and using it less frequently as the case improves.

Inflammation of the lachrymal sack protargol is the best remedy we have, as it speedily reduces the purulent secretion without causing pain, injection may be allowed to pass into the nose without producing unpleasant symptoms.

Therapeutic Hints.

Pernicious Vomiting.—Cocaine hydrochlorate, gr. one-sixth hypodermically once or twice daily, immediately before feeding.—*Pozzi*.

Hay Fever.—A fifteen grain dose of salicylic acid will frequently avert a threatening attack of hay fever.—*Ex*.

Dysmenorrhœa.—A mixture of caffeine, potassium bromide, and tincture of gelesmium, administered for a few days before menstruation, is of much value in the treatment of dysmenorrhœa.—*H. TALLEY*.

Typhoid Fever.—Banana diet is recommended, because it is easily digested, almost wholly absorbed from the stomach, and is very strengthening.—*Usery, of St. Louis*.

Impacted Cerumen.—Peroxide of hydrogen acts rapidly in disintegrating the solid cerumen; in a few minutes after its use the wax can readily be removed from the ear by syringing.—*W. D. TURNER. —Ex*.

Irritation from Non-Advancing Teeth.—Irritation from non-advancing teeth occurs because the normally flinty teeth, to which the soft gums can offer no practical resistance, are suffering from lack of nutrition. While the gum lancet gives temporary relief, yet it transforms normal into cicatricial tissue. In place thereof, the writer, Dr. Wallen, recommends correcting any faulty conditions in the infant's alimentary tract, and placing it upon a mixture of the calcic salts, approximating the proportions as nearly as possible to those found in the teeth. For example :

R Calcium phosphate, parts ij.
Calcium carbonate, parts iij.
Sodium phosphate, part j.

M. Triturate to an impalpable powder. Sig. Three to four grains, or more, with other food, three or four times a day for a week, then once a day, p. r. n. In anemic children a trace of ferric phosphate is added.—*New England Medical Journal*.

Menthol Collodion for Contusions.—The *Jour. de M. de P.* says this is recommended by Professor Name to soothe pain and accelerate recovery. After rigorous antiseptis and cleansing of the contused parts with ether, they are painted once or twice a day with a mixture 24-27 grams of collodion with 6-8 grams of menthol.—*N. Y. Poly*.

Fetid Chronic Laryngitis.—

- R Potassii permanganatis, gr. ij.
 Aquæ destillatæ, ℥ ij.

M. S. Use in atomizer several times daily.

—SAJOUS.

Sore Nipples.—

- R Ichthyol, ℥ i.
 Lanolin, ℥ i¼.
 Glycerin, ℥ 1¼.
 Olive oil, ℥ iiss.

M. S. Apply.

—OEHREN.

Rickets—Rachitis.—

- R Syr. ferri iodidi, ℥ j.
 Syr. zingiberis, ℥ j.
 Aq., q. s. ad ℥ iij.

M. Sig. Dose, one dram, t. i. d. for a child of 2 years.

—POWELL.

- R Ammonii chloridi, gr. xxiv.
 Syr. ipecac., ℥ iss.
 Syr. tolu., ℥ j.

Liq. potass. citrat., q. s. ad ℥ iij.

M. Sig. Dose, one dram every two hours for a child of two years.

—POWELL.

- R Syr. ferri iodidi, ℥ iss.

Mist. ol. morrhue et lactophos calcis, q. s. ad ℥ iij.

M. Sig. Dose, one-half to one dram, t. i. d.

—POWELL.

Diarrhoea.—

- R Tr. opium, ℥ ss.
 Tr. rhubarb, ℥ ss.
 Comp. tr. catechu, ℥ i.
 Ol. Sassafras, mxx.
 Comp. tr. lavender, q. s. ad ℥ iv.

M. S. One teaspoonful every four hours for adults.

—LOOMIS.

Phlegmasia Dolens.—

- R Lard (purified), grm. 30.
 Ext. opium,
 Ext. belladonna,
 Ext. hyoscyamus,
 Ext. hemlock, aa ℥ i.

M. Ft. unguentum. Sig. Apply over inflamed veins daily.

Chilblain Remedy.—

- R Chloroformi, ℥ ss.
 Lin. belladonnæ, ℥ j.
 Tinct. benzoin comp., ℥ ss.
 Lin. saponis, ℥ vj.

M. Sig. This should not be applied by rubbing. Instead use bits of lint saturated with the mixture, and allow them to remain on the affected parts about ten minutes.

Phthisis Cough Mixture, (Charity Hospital, N. Y.)—

- R Codeinæ, gr. iij-vj.
 Vel. morphinæ sulph., gr. ij-iv.
 Acidi hydrocyanici dil., gtt.xx.
 Chloroformi purificati, *m* xx.
 Syr. tolutani, $\frac{3}{4}$ iv.
 M. Teaspoonful every four hours as necessary. To allay cough in phthisis.
 —White, *Journal Medicine and Surgery*.

Condylomata—Warts and Indolent Ulcers.—

- R Salicylic acid, gr. xxx.
 Acetic acid, $\frac{3}{4}$ j.
 M Sig. Apply with camel's hair brush.—*Louisville Med. Mon.*
 (Said to be highly efficient for venereal warts.—Ed.)

Bleeding Hemorrhoids.—The following is an excellent suppository for bleeding hemorrhoids:

- R Ferri subsulph., gr. iij.
 Plumb. acet., gr. j.
 Mass. hydrarg., gr. ss.
 Ol. theobrom., q. s. ut ft. suppos. j.
 Introduce one morning and evening.—*Horwitz Med. World*.

To Check the Secretion of Milk.—The *Revue medicale* quotes the following from the *Gaz. hebdomadaire de med. et de chirurgie*:

- R Sulphate of atropine, gr $\frac{1}{4}$.
 Sulphate of magnesium, gr. 1,350.
 Infusion of gentian, *m* 3,600.
 M. A tablespoonful to be taken every two hours.—*N. Y. Med. Journal*.

Fissure of the Tongue.—

- R Acid carbol, parts 1.5.
 Tinct. iodi, parts 5.0.
 Glycerini, parts 15.0.
 M. D. Sig. For local application with a camel's hair brush.—*Monatsch f. Dermatol*

Corn Cure.—

- R Salicylic acid
 Tinct. Cannabis indica, aa $\frac{3}{4}$ j.
 Flexible collodion, q. s. ad $\frac{3}{4}$ j.
 M. Sig. Apply with a camel's hair brush morning and night, limiting the coating strictly to the corn. The applications are continued for several days and then the parts are soaked in warm water, when the corn may easily be shelled out in part is not entirely.—*Louisville Med. Mon.*

Acute Follicular Tonsillitis.—F. Ingals, (*London Medical Monthly*).

In the treatment of this condition the author recommends the application of a 50 per cent. solution of guaiacol in oil of sweet almonds to the inflamed tonsil. Internally he advises:

- R Pot. bromid, grs. 80.
Soda Salicylate, $\mathfrak{z}$ j.
Tr. opii deod., $\mathfrak{z}$ j.
Cascara Cordial, ad $\mathfrak{z}$ j.

Sig. Teaspoonful every four hours in water.

—LARYNGOSCOPE.

Eczema of External Auditory Canal.—

- R Acid phos. dil., $\mathfrak{z}$ i.
Tr. Ferri Perchloride, $\mathfrak{z}$ $\frac{1}{4}$.
Syr. Limonis, $\mathfrak{z}$ 6 m.
Teaspoonful in water after meals.

- R Acid Carbolic pure, gr. 10.
Ungt. zinc ox. benz., $\mathfrak{z}$ 4 m.

Apply the ointment freely, carefully cleansing the ear of scabs and scales.

Use no fluids.

—LARYNGOSCOPE.

CHARLOTTE, N. C.
Observer Printing and Publishing House.
1899.

NORTH CAROLINA MEDICAL JOURNAL.

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIII.

CHARLOTTE, JANUARY 20, 1899.

No. 2

Original Communications.

A Running Account of My First Three Years' Surgical Work.

By HUBERT A. ROYSTER, A. B., M. D., Raleigh, N. C.

One of the Visiting Staff, Rex Hospital; Surgeon-in-Charge, St. Agnes Hospital;
Formerly House Surgeon, Mercy Hospital, Pittsburg, Pa.

IN this report I have neither an extraordinary number of cases nor an array of surprisingly favorable statistics to present. My purpose is to put on record all the important surgical operations performed during the first three years of my practice, from August 1st, 1895, to August 1st, 1898, with a view of indicating the nature of the work which has fallen to my lot and with the hope that a resumé of the operations may not prove unprofitable. As far as possible, the cases have been arranged according to the regions of the body affected. Cases of a minor nature will be referred to collectively, while those of greater consequence will each be briefly described. Forty-five cases form the basis of this record. Amputations of fingers or toes, opening abscesses of different kinds, stitching small incised wounds and other lesser operations have not been included here, though many of these have been done. The number of fatal cases was two. With a few exceptions all were done either at the Rex Hospital or at St. Agnes Hospital, the latter being for the colored race alone. Adequate rooms and equipment for modern surgery are provided at both institutions.

Preparation of Patients.—When feasible, great care was always given to the preparation of patients before operation. Even in the minor cases it was deemed essential to perfect results. For these, a laxative, a guarded diet and rigid attention to the field of

operation sufficed. The skin over the part to be operated on was shaved, scrubbed gently with soap and water, then with alcohol and then with bi-chloride-of-mercury solution, and a dressing saturated with the latter was applied and retained by a sterile towel or bandage. This process was repeated at the time of operating, using sterile water as the last solution. In the major cases, and especially in those requiring abdominal section, the preparation was more thorough. The emunctories were depleted still more by purging and by bathing; the diet was restricted, and reduced to liquids for 24 hours preceding the operation; and the patient's skin received the closest attention. Conscientious preliminary treatment, even in trivial cases is one of the most important means to success in surgery. To my mind, one of the essential points in preparing patients for capital operations, to be done away from home, is a sojourn in the hospital at least a week before the expected time, in order that they may become completely accustomed to their new surroundings and to the different mode of life. This is particularly desirable in patients of the poorer classes, who would feel the change most keenly, and is an immense advantage to women of any station about to undergo abdominal operations. It will not be necessary to go further into detail regarding the preparation of patients, since the general plan has been outlined. In some cases the method was modified to suit special needs, as will be noted in speaking of them.

Preparation of Hands, Instruments, Dressings, etc.—As routine practice the hands of operator and assistants were scrubbed thoroughly and persistently for ten minutes with soap and hot water, using a large stiff brush, then rubbed and immersed in alcohol for two or three minutes, then in mercuric bi-chloride (1-2,000) for the same time, and, finally, rinsed in sterilized water. When the abdominal cavity was to be invaded, the permanganate of potash and oxalic acid solutions were usually employed as an additional safeguard, this being probably the safest method of hand disinfection known at the present time. From laboratory researches we learn that it is impossible to sterilize the hands perfectly, but the surgeon must make the attempt and thereby cultivate an "aseptic conscience"—the mood requisite for ideal technique. The instruments and dressings were prepared in the customary way by boiling and steam sterilization, respectively. While in use during an operation the instruments were kept in dry, sterilized trays, or, better, resting on sterilized towels laid over a table. Pieces of sterile gauze in different sizes were used for sponging and discarded after being soiled.

Anesthesia.—The anesthetic of choice was ether. Chloroform was administered in the few instances where ether was contra-indicated. In the hands of a competent anesthetizer it is rare to have troublesome symptoms from ether and it is certainly less dangerous than chloroform. Except in two or three of the cases the anesthetic was administered by the same assistant, an expert and reliable anesthetizer. Some practical experiments were made with the essence of pepsin as a preventive of nausea and vomiting after anesthesia. A tablespoonful was given in a number of cases about an hour before the time for anesthetizing, and my assistants have reported many evidences of its strikingly good effects in diminishing these unpleasant symptoms.

After-treatment.—The character of the operations was so varied that it is scarcely in order here to define their after-treatment as a whole. Suffice it to say that the writer lays on this no less emphasis than on the preparatory treatment. In this part of the operative work, that surgeon will be most successful who possesses in the highest degree the qualifications of a good physician. Or, as forcibly expressed by Professor Ashhurst, "the importance, and even necessity, of a thorough knowledge of practical anatomy can, indeed, scarcely be overrated; yet it is more essential for the surgeon to be well versed in pathology and therapeutics (or, in other words, to be an accomplished physician) than it is for him to know the attachments of every muscle in the body, or all the possible variations of arterial distribution." Following abdominal sections it is my rule that the bowels should be moved early, even in the favorable cases. Intestinal distention becomes a predisposing factor in the production of sepsis and the sooner the alimentary tract is emptied and drained the better. Intelligent personal attention to patients who have just undergone operations will save many that might be lost by carelessness.

OPERATIONS.

1. *On the Head, Face and Neck.*—Probably the most interesting operation on this region was (1) a *partial excision of the superior maxilla*. The patient (referred to me by Dr. N. G. Carroll, Dentist) was a colored girl, L. T., 17 years, who presented a hard tumor, the size of a walnut, projecting from the alveolar margin of the left upper jaw. The lip was protruded in front of it, the adjacent nostril was somewhat obstructed and the left eye was encroached upon. By lifting the lip and dissecting it from the bone for a considerable

distance upward, the tumor was seen to spring from the interior of the autrum of Highmore, filling it almost completely. All the teeth of the left upper jaw were removed, the anterior wall of the autrum was broken through, and the mass shelled out with some difficulty; after which the cavity was curetted and cleaned in order to remove portions of the tumor which adhered to the walls. Packed tightly with gauze. Bleeding very free and troublesome both during the operation and for several hours afterward, chiefly from a portion of the gum posteriorly. Pressure and styptics finally controlled it. Microscopical sections of the growth showed it to be made up of fibrous tissue. The patient made a good recovery, and, with a well-fitting plate, will have a useful jaw.

(2.) S. S., male, age 62—*superficial epithelioma* in left temporal region, 4 inches long and 2 inches wide, and involving the upper eye-lid. Removed by a free incision and raw surface curetted. Healed by granulation; dusted freely with acetanilid at each dressing. Some contraction of left eye-lid. No sign of recurrence so far—12 months.

Two cases of *facial injury* were treated. The first was that of (3) a woman from the "Bowery" district, who was struck by a brick on Christmas morning, 1895. The missile took effect at the junction of the nasal bones with the nasal process of the frontal, splintering these into many pieces. The wound was deep, extending into the frontal sinuses and orbits, while the surrounding soft parts were extensively lacerated and contused. Under chloroform anesthesia, the parts were irrigated with boric acid solution, all the debris washed out and the lacerated edges sutured, as well as could be done, leaving an opening in the centre through which gauze was packed into the wound. Recovery uneventful with only slight disfigurement. The other case of injury was that of (4) a 16-year old boy, whose face was badly lacerated by the explosion of a toy cannon. His upper lip received a long, ragged wound through its whole thickness. His lower lip was mangled and all the front teeth were either gone or hanging loosely from their sockets. After chloroforming the patient and removing the loose teeth and pieces of jaw-bone, the edges of the wounds were united with silk-worm gut sutures, being careful to preserve the mucous membrane of the mouth wherever possible. The under lip required some painstaking plastic work. The boy's lips are now well-nigh perfect; but he lost his left eye from corneal sloughing, due to the injury from powder driven into it.

The last case in this region was (5) a young girl, who had a *sarcoma* of the deep glands on the right side of the neck. An exploratory incision was made and the growth found to be inoperable. The tumor was absolutely fixed; the cervical plexus passed directly through it; it involved the great vessels of the neck; it dipped beneath the muscles, was adherent to the vertebræ and invaded the chest. The wound was closed and united by first intention. The unfortunate girl has not been heard from since her discharge from the hospital.

[TO BE CONTINUED.]

Drainage in Abdominal Surgery.

By DR. J. W. LONG, Salisbury, N. C.

THE question of drainage in abdominal operations dates back to the time when man first dared to invade the peritoneal cavity, possibly before, and will always be of vital interest to the surgeon as long as abdominal sections are done.

The trend of modern surgery is towards simplicity—thorough, complete work stripped of all superfluities. We have arrived at that stage in abdominal work where we can afford to have an opinion as to what is best to be done and to practice well-defined procedures in dealing with the difficult problems that confront us. As every operator is in one sense a law unto himself, he should determine what methods will yield the best results in his hands. This can be done only by extensive reading and sifting the literature of the subject, personal observation of the work of other men, and one's own experience. Some operators drain every case, others of equal note drain only a small per cent. Why is this? Is drainage necessary, or is it a habit? If it is necessary, why does the surgeon who does not drain get good results? If it is unnecessary, why does the surgeon who drains every case practice a method which is useless?

I speak to men renowned in abdominal surgery: I ask you the question "Why you drain?"

In thinking over this matter I can conceive of but two reasons for draining: either,

(1) There is something in the abdomen that needs to be drained away, or

(2) During the operation *we put something* there that should be allowed to escape.

In other words, we are dealing with an infectious case, or we infect the case by our manipulations.

The first-class is strongly represented by a case of general septic, suppurating peritonitis. Here the primal object is to drain, and thereby remove the infectious material that is rapidly killing our patient. Therefore we make long incisions, break up all pus pockets, wash freely with gallons of salt solutions, and drain from every available point.

The other class may be illustrated by a case of simple removal of the tubes and ovaries. Here, there is no infectious matter, but the operator is not quite sure of his technique and he inserts a glass tube or a piece of gauze. Had his aseptic precautions been perfect, there would have been no need of drainage. Between these two extremes there are many gradations. I state candidly that the question of drainage in abdominal cases has always given me much concern.

Think for a moment! Take a healthy stalwart man, open his abdomen and insert a glass tube or a roll of gauze down between the intestines to the bottom of his pelvis! How tolerant the peritoneum must be to withstand such intrusion!

True, the conditions sometimes present justify resorting to these harsh measures, but how often have we used them when in the light of later experience they might have been omitted.

The peritoneum is really a great lymphatic gland. It literally drinks up any fluid that is poured into it. The modern surgeon does not hesitate to fill the cavity with salt solution and close without drainage, knowing that in a short while it will all be absorbed into the circulation and really benefit the patient. Serum and blood, in fact any innocuous fluid may be disposed of the same way. Even septic fluids are absorbed with great rapidity which accounts for the oftentimes *early* overwhelming of the general system in septic peritonitis.

Again, it is readily admitted that all forms of drainage carry with them certain dangers and inconveniences. Drains of any kind keep the abdominal door open, as it were, and thereby lay the patient liable to subsequent infection after even the cleanest operation. Glass drains are liable to break. Gauze drains are hard to remove. Nature endeavors to protect the peritoneum from the presence of

the drains by rapidly throwing out adhesions; and these in turn become a hindrance to normal function and even a menace to life by their restrictive and obstructive effects. Later, the site of the drain may be the starting point of hernia.

But to do away with drainage, we must do clean surgery. Indeed, the ulterior object of this paper is to enter another plea for clean surgery. There must be no make-belief, nothing slipshod. There must be no parade of antiseptic methods with glaring inconsistencies in the minor details. To omit the drain and do sloven work, is to sometimes lose your patient. The more perfect a surgeon's technique the less he drains. Some men may retain the drain from force of habit, but a survey of the work of a considerable number of surgeons will convince us that surgeons are draining their abdominal cases very much less frequently than formerly. I feel sure there are those present who will sustain this statement from their own experience. Kelly says that formerly he drained in eighty-five per cent. of his cases, now in only ten or fifteen per cent. The limitations of this occasion would hardly permit me to go into details sufficiently to point out the indications for or against drainage in each and every class of cases that come under our care, but it may be broadly stated that *septic cases should be drained while clean cases should not be drained*. From the very beginning of my abdominal work I was always glad when I could close the abdomen without drainage, and I find that the more I operate the less I drain. So decided have my convictions become upon this subject that in certain cases which formerly I would have drained, now I do not think of draining.

In fact the tendency is to go still further and omit drainage in many cases accompanied by more or less infection. I will cite a case to show what may sometimes be done with a septic case.

Mrs. O., referred by Drs. Turner and Doughton, of Wilkesboro. Age, 52. Married, mother of several children, has noticed an abdominal enlargement for nearly a year, during that time the periods have been irregular and sometimes profuse, she also has a left inguinal hernia; since the middle of June, she has been confined to her bed, and takes morphine daily for the pains. I saw this patient at her home on August 18th. The abdomen was enormously distended, exquisitely tender, symmetrical in outline. Fluctuation could be made out, and by deep pressure a mass could be felt. The sensation was that of a tumor surrounded by fluid. I

declined to operate at the patient's home and advised that she be brought to the hospital, which was done September 13th. She was unable to sit up, and was brought on a stretcher the distance of 150 miles. An examination after she reached the Sanatorium revealed her condition to be much worse than when seen in August. The abdomen was more distended, large veins coursed over it, the tenderness especially in the left side was extreme, emaciation was marked, the kidneys were secreting only three ounces of urine in twenty-four hours, the pulse weak and frequent, and the temperature ranged from 99° to 102° , while her vision was so impaired she could not distinguish a white person from a black one. I left her for a month before I dared to operate on her. Active stimulation, during this time, improved her considerably. On October 14th, Drs. John Whitehead, McKenzie, Turner and I opened the abdomen and found the largest multilocular cyst of the uterus I have ever seen. Together with the moderate amount of free peritoneal fluid present it weighed not less than fifty pounds. It filled the pelvis, the entire abdomen, displacing the viscera, until actually it extended up into the thorax quite to the nipple line. It was adherent to everything in sight except, strange to say, the ovaries which were free and normal. The enucleation was difficult and tedious, as the tumor had to be stripped by piecemeal from diaphragm, abdominal wall and viscera. The cyst contents were varied and complex. Our head nurse, a woman of experience, trained at the Hopkins, said she never saw such stuff taken out of any person. The evidences of peritonitis and inflammation of contiguous tissues were abundant. Of course the uterus was removed also.

After copious flushing and washing (I use this word advisedly) with hot sterile salt solution the abdomen was closed without drainage. This woman made one of the nicest recoveries I ever saw, her functions all became normal, she gained strength rapidly, and while she did not literally "pick up her bed," she did walk and went home happy.

What could drainage have added to this case? Only discomfort, annoyance, and another source of danger. I could multiply illustrations till I wearied you, therefore I will let this one case suffice, as it tends to establish the truth of what I set out to prove, namely: that, if we do clean surgery there is rarely need for drainage.

Read before the Tri-State Medical Society, Charlotte, N. C., January 18-20, 1899.

Dystocia.

By D. A. STANTON, M. D., High Point, N. C.

THE only excuse which I can offer for presenting this old subject is its importance, and it needs no far fetched ideas or fine spun theories to cause us to appreciate the significance of difficult labor.

Once in the lying-in room where we know it is impossible for dame nature to take proper care of a faithful wife and the life of an unborn babe we can ever afterwards appreciate the subject of dystocia.

Helping both safely and as comfortably as we can to a successful termination makes a home unmeasureably happy and raises our profession in the eyes of all. To do this we should be thoroughly familiar with all forms of difficult labor, from the simplest uterine inertia requiring only a dose of quinine or a hypodermic injection of strychnine nitrate to the severest case of contracted pelvis necessitating a Cæsarian section of Symphysiotomy.

Uterine inertia due to other causes than malformations, is the most frequent met with and is alike trying to physician and patient. If a person who is objectionable to the patient remains in the room pains will often be inhibited, such a person should be put out and we should make ourselves agreeable to the patient and her friends. We have all heard it said "the doctor has frightened the pains away." The severity of the pains caused by the uterine contractions will in some particular cases set up an inhibitory action and thus render the pains ineffectual; in such instances 15 gr doses of bromide of potassim or hydrate of chloral repeated in fifteen or twenty minutes or a hypodermic injection of morphine and atropine will be of much benefit.

This sedative treatment will do good in primipare where the pains become ineffectual from the tiring of the muscles in their first effort to dilate the cervix. After a short period of rest the pains will return with renewed vigor, should they fail to do so in a reasonable length of time, the sedative treatment should be followed with alcohol, quinine or strychnine.

If the os is rigid and unyielding, hot water injections against the cervix will do good, but if the labor is delayed by a deformed pelvis the deformity ought to be recognized, and a history of malpositions and difficult labors in a woman should arouse our suspicion

of a deformed pelvis. It is with shame, that we admit that ignorance or thoughtlessness along this line has cost the life of many a woman and even more children. These deformities are not so infrequent but that every active practitioner will meet with some cases during his professional career. The number of deformed pelvises is variously estimated at from two to eight per cent.; the flat pelvis is perhaps found more often than any other deformity, tho there are a variety of deformities mentioned in works on obstetrics. It follows therefore that an ability to recognize deformities in the female pelvis is a necessary equipment for every practitioner of medicine who may be called upon to attend women in confinement, and a knowledge of pelvimetry is as essential to the intelligent and successful practice of obstetrics as are percussion and auscultation to the practice of medicine.

The following case was given me by a brother physician which goes to prove the force of the above remark:

Dr. A. was called by Dr. B to assist in a shoulder presentation; the condition of the patient was good and the foetal heart sounds could be distinctly heard and was regular, the membranes had ruptured sixteen hours before the consultant arrived; however in their desire to relieve their patient they forgot that the woman had a pelvis and at once did a podalic version, consuming one and a half hours in getting the after coming head through the pelvis.

During this experience they had plenty of time to remember that deformed pelvis exist outside of text books. The child was of course dead, and it was useless to consider Cesarian section. They kept on with forceps to the head and blunt hook in the mouth and finally delivered a dead baby, another victim to the flat pelvis and, I might add, thoughtlessness also, for I am sure a Symphysotomy or a Cesarian section done in time would have saved both mother and child, as it was both were lost.

A pelvimeter should be in our obstetrical bag but where one is not at hand we should, in doubtful cases, measure the conjugate with the index and middle finger of the right hand held stiffly together, pass them up to the promontory of the sacrum, let the thumb slide up to the mons-veneris and make pressure up this way until we plainly feel the impress of the arcuate ligament under the lower edge of the symphysis. With the finger nail of the other hand a mark is made at this point, withdraw the hand and the distance from this point to tip of middle finger will be the diagonal

conjugate, subtract $1\frac{3}{4}$ centimeters and the remainder is the true conjugate. When the true conjugate is not more than $9\frac{1}{2}$ centimeters ($3\frac{1}{2}$) inches there is almost sure to be trouble with a normal size head and forceps or premature labor will have to be resorted to. When the conjugate is as low as 8 c. (3 inches) premature labor is indicated. A conjugate of from $7\frac{1}{2}$ to 7 to 6 c., requires premature labor with Cesarean section four weeks before term.

If the patient is not seen until labor has begun one of the following modes of delivery must be chosen. Wait and see if the head will engage before application of forceps, Version, Symphysiotomy, or Cesarean section. So long as the child is living craniotomy should not be considered. Having measured the pelvis we can more easily decide what to do in the premises. With a conjugate below $6\frac{1}{2}$ c., the woman should go to term and be delivered by Cesarean section.

Labor is obstructed in about 2 per cent. of all cases by some abnormality of the maternal structures of the parturient canal. The septum of a uterus bi-cornus may rupture and give rise to alarming hemorrhage or a decidua membrane may be retained in the non pregnant side and cause septic infection. The cervix may obstruct labor by reason of atresia, cicatricial infiltration, contraction, or rigidity, or there may be transverse or longitudinal septa in the canal. Atresia of the cervix in a pregnant woman must of course be acquired after impregnation; it is however rarely complete. Cicatricial infiltration of the cervix may generally be overcome by hydrostatic dilators. Congenital narrowness of the vagina or vulva is as a rule overcome by the advance of the presenting part tho' often at the expense of vaginal or perineal laceration. Hydrostatic dilators will help wonderfully in such cases but in some instances it may be necessary to resort to incision.

Carcinoma of the cervix will in nearly 50 per cent. of the cases interrupt gestation at various stages, when they do go to term some may be delivered spontaneously tho, this is not the rule. Cesarean section is commonly the proper treatment for these cases and should be selected if there is good reason to doubt the possibility of spontaneous or artificially aided labor.

Fibroids of the uterus and cervix low enough in situation to become incarcerated in the pelvis are likely to cause insuperable obstruction besides favoring abnormal positions of the child's head. If attempts under anesthesia to dislodge the tumor and push it above the pelvic brim fails a Parro Cesarean operation should be performed

even tho' the tumor is not of such size as absolutely to prevent the delivery of the child, because on account of its low vitality the pressure to which it would be subjected by drawing the child past it, it would slough and probably cause a fatal infection. Obstruction in labor on the part of the foetus whether due to over-growth, deformity or malposition should be recognized.

Prolongation of pregnancy is perhaps the most frequent cause of overgrowth; in about 6 per cent. of women pregnancy may be expected to be prolonged beyond the 300th day and every day the foetus remains in the womb beyond the usual time some little increase may be expected; it is a safe rule to allow no woman to exceed the normal duration of pregnancy more than two weeks.

The various double monstrosities, hydrocephalics, prematurely ossified heads, tumors of the foetus etc, cannot be treated by a single rule, but each case requires management peculiar to itself. Shoulder presentations occurring once in 260 confinements has an estimated maternal mortality of 11 per cent. one half of the children perish. I mention the treatment only to insist upon an endeavor being made early before the membranes are ruptured to bring the head or breech through the os and it ought generally to succeed by external manipulations only, failing in this turning by the combined external and internal method should be attempted and the introduction of the entire hand ought to be reserved for these serious cases where the waters have been long drained away when first seen.

With prolapsed cord many children perish, but I have not found it so difficult to replace. In August, 1897, was called to see a negro woman in labor and found the funis prolapsed into the vagina, waters had escaped about fifteen minutes before I arrived, the pains were vigorous and head engaging. Gave chloroform and pushed the cord well up beyond the head, stopped the anesthetic and with my hands made strong pressure over uterus and held the head firmly against the brim of the pelvis until the pains caused the head to engage. Labor then proceeded without further trouble.

Face presentations may give rise to much trouble when the child fails to rotate to the front, though it seldom fails to thus rotate, and requires little more attention than a vertex presentation. But should it fail to rotate assistance may be given with the blade of a forcep or the hand inserted so as to make pressure on the posterior cheek. If this fails both blades of the forceps may be applied to

the head and a considerable amount of force used in trying to rotate head, though this is dangerous to the child. If the child be small and the pelvis large it may be delivered in the mento-posterior position. Finally if all these measures fail there is no resource left except crancotomy.

I have not seen anywhere a neck presentation recorded, however, I have seen one case in consultation. In September, 1896, I was sent for by Dr. Tomlinson to assist him in delivering Mrs. J., at Archdale. On inquiry I learned that she was seven months advanced and had been in labor twelve hours; for six hours there had been no descent of the child. Examination revealed the presenting part tightly wedged into the pelvis; under complete anesthesia it was impossible to force the child back or to pass the hand beyond the presenting part to change its position; palpation showed the child to be lying with its abdomen to the mothers, head flexed back between the shoulders. After considerable effort a cord was passed around the neck and by strong traction enough space was secured to decapitate the head with a blunt pointed pistory. The body was easily delivered as was also the after coming head. In most cases the management of twins does not differ from that of ordinary labor, but the degree to which the uterus is distended may cause some inertia in the first stage of labor and after the first child is born, it will facilitate matters to rupture the membranes and let the waters drain away. If labor pains do not return in fifteen minutes after the first child is born try to induce them by friction over the uterus and a dose of ergot may be given. Occasionally serious difficulty arises from parts of both foetis presenting simultaneously thus impeding the entrance of either child into the pelvis or they may get locked together so as to render delivery impossible without artificial aid. It may be far from easy to discover the cause of the obstruction as a case in my practice verified some years ago, when the heads both presented; when first seen there was no mistake as regarding what was felt on examination. It was the head in the R. O. A. position. I waited six hours expecting the labor to terminate any hour, as there was a good dilatation and pains vigorous. During these hours of anxious waiting there was no descent of the head, dilatation being sufficient I applied the forceps but was astonished at the force necessary to dislodge the head and bring it to the perineum though finally succeeded and delivered twins, both heads presenting. In this instance it was impossible to tell where

or what the obstruction was except a conjecture, believing there was twins in utero. I now believe the second child's head was engaged against the chest of the first.

When both heads present at the brim it will generally be possible to get one out of the way by appropriate manipulation internal and external, and application of forceps to the other, but if both heads are allowed to enter the pelvis the difficulty will be grave.

Read before the Tri-State Med. Society, Charlotte, N. C., Jan. 18-20, 1899.

DISCUSSION.

Dr. J. W. Long.—I don't think there has been a more practical or interesting paper brought before this Society than Dr. Stanton's. It is one of absorbing interest from the fact that it interests us all, for we all see cases of dystocia, unless perhaps it be some of our friends who fit glasses and those who confine themselves to looking through the microscope, but for the bulk of us who see obstetric cases it is a very interesting subject. While Dr. Stanton was reading his paper and when he mentioned the presence of solid tumor in the pelvis, I recalled a case which I had the pleasure of seeing with Dr. Stanton a number of years ago, I think in 1893, in a woman who was about three months pregnant and whose pelvis was completely choked by fibroid tumor. The condition was such that it was clearly impossible for the woman to be delivered so it was thought best to do a Hysterectomy, in other words, to do a Porro operation, which we proceeded to do, Dr. Stanton, and his associate, Dr. Cox, and myself, and we did the Porro operation, removing the tumor, the entire mass. My great object was to relieve this woman from the danger to which she would be subjected in childbirth. We did this operation by cross-section without draining, dropped the pedicel, and so far as I have been able to discover it was the first operation that was done by that method in America, and probably the second in the world for that particular condition and by that method. I recall a case of this kind that came under my observation about a year ago. A lady living in the western part of the State came to me with a tumor of considerable size, and she gave a history of having had great danger in her last three confinements. She was the mother of five children, I believe, possibly six, but in the last three confinements there was excessive labor, increasing difficulty in delivering the child, and she had with her

some most excellent physicians. On examination I found that she was three and a half months pregnant, that the uterus was pushed upwards and a little to the left, lying under the ribs in about the normal position of the spleen. The pelvis and the lower half of the abdomen was filled with a fluctuating tumor. We advised her to have this tumor removed as it was clearly impossible for her to be delivered in the natural way with this tumor present. With the assistance of my associate, Dr. Whitehead, I opened the abdomen about a month after that, when she was four or four and a half months pregnant, and attempted to remove this tumor. I found it was an intra-ligamentous dermoid. The walls of the cyst were so exceedingly fragile that it was impossible under the circumstances to peel out the entire tumor, so I did what I conceived to be the best thing under the circumstances, and that was to make an incision in the posterior vaginal walls and take the tumor in that way. Later she returned to our town and was delivered in my absence by my associate, Dr. Whitehead. Now, this was a case in which the woman's life and the child's life would have been sacrificed if she had come to term unless she had had a Cesarian section. I have now in my hospital down at Salisbury a lady whom I delivered last August, and whom I saw for the first time when I went to see her during her confinement. At this time I made a vaginal examination and found that she had a tumor, probably not larger than an orange, though I was unable to clearly define the limitation of the mass. When I examined her she was in the first stage and with the presentation high and this tumor was caught down beneath the head, caught between the head and the basin of the pelvis. By pushing this tumor, not larger than a small orange, by pushing it back, and by dint of a great deal of effort on her part and encouragement on my part, we managed by an all night seance to get through, and by my advice she has come to the hospital to have this tumor removed, feeling sure that if this tumor should increase in size, being fixed as it seemed to be in the pelvis, that in case of a subsequent pregnancy, it would be almost impossible to deliver her. So the lesson which I would glean from these cases which I have reported as bearing upon the subject which Dr. Stanton has so ably presented to us, is that in some of these cases of dystocia we must take time by the forelock and remove the difficulty before the woman comes to labor.

Dr. J. C. Walton.—I have enjoyed very much Dr. Stanton's most

valuable paper, and in this connection I want briefly to report a case that I recently saw of prolapsis of the uterus. The uterus was outside, about one-third or one-half of the uterus, the woman had been having hard pains all day, ineffectual pains, and by dilating and the forceps we succeeded after a great deal of difficulty in removing the child. In this case the uterus was filled out, and we had a great deal of trouble on that account, but got her through all right. This was the first case of prolapsis of the uterus I ever had in my experience, and is a rather rare complication.

Dr. Geo. Ben. Johnston.—I have listened with a great deal of interest to Dr. Stanton's paper, and whereas I am not an obstetrician I am in an allied branch and would like to make mention of a case which was very similar to the first case Dr. Long reported. The case was referred to me by Dr. Dayton, of this State, of a woman forty years of age, the mother of seven children, who had gone six years without any pregnancy, and her womb having become pregnant, was examined by the doctor and the tumor of the uterus was discovered, so blocking the entrance to the pelvic cavity that he deemed a natural delivery impossible. He reported the case to me for treatment, and upon examination, and the history of the case, I gave the probable diagnosis of uterine fibroid complicated by pregnancy having advanced to four and a half months. Examination showed a tumor nearly filling the pelvis, so completely including the vagina as to make it impossible to reach the cervix by the examining finger. This tumor was attached to the anterior portion of the uterus about the junction of the cervix with the body. It made an extremely disagreeable and painful pressure upon the bladder. The patient's condition was not favorable, she was wasted and weak, but it was deemed advisable to perform an immediate operation upon her upon the hypothesis that she could not be delivered by the natural medium, that in all likelihood could not go to term to be subjected to a Cæsarian section for the rescue of the child, that abortion would take place which would be so complicated by the tumor, that extirpation was determined upon. The operation was performed without a great deal of difficulty except the danger incident to wound of the bladder and the uterus in the space in which the tumor was located as this one was. When the tumor was removed we discovered that it was the size of a small cocoon, that the uterus was conical in shape, and when the uterus was opened it was discovered that the walls of the uterus were of

uneven thickness. The walls of the uterus at its right arm were extremely thin—so much that after opening this specimen I was more than ever convinced that the operation was a proper one because I believe that if an attempt at abortion had been made, that the uterine contraction, probably would have ruptured the uterus at this point, which would have complicated an already complicated case, a ruptured uterus in the presence of tumor of this character. The woman made an excellent recovery without any untoward symptoms whatever. My mind was easier made up as to what should be done in this case, having had the advantage of previous conversation with Dr. Long during the time that he operated upon and reported the case to which he alluded, which at that time was unique case and which represented one of the very few cases reported in medical literature.

Dr. J. M. Parrott.—Dr. Stanton's paper was of especial interest to me, and I listened to the discussion by Dr. Johnson and Dr. Long with much pleasure. It was of especial interest to me, because about eighteen months ago I was called in consultation to see a case of labor in which we found the pelvis was much contracted, so much so that I recommended a Cesarian section which was done at once, before the woman was exhausted. We removed the child, removed the placenta, and closed the wound in the uterus, which by the way we made transversely instead of longitudinally, but we closed the wound in the uterus by three layers of sutures. We closed the wound externally. The woman recovered and the child and mother are still living. I made at the time an ovarian section so as to prevent the future pregnancy of the woman. I took that to be the proper thing to do under the circumstances.

Dr. Hugh T. Nelson.—In this connection I would like to report two or three cases that I have never seen any notice of in any of the journals and have never seen any obstetricians who have had the misfortune to have such cases. In two of these cases there was complete rupture of the vagina following shoulder and arm presentation. In the first of these cases there had evidently been an attempt at delivery and the physician who saw the case had thought that there existed a twin pregnancy, and I was sent for to help. I entirely failed in my effort at delivery. The physician who came in said he was pretty confident that he could deliver the woman and advised turning. He did so and was very much surprised to find that the child disappeared entirely from the field of operation,

but the delivery was easily accomplished. The patient was found to be in a moribund condition and died that night. I went up the next day and made a post mortem examination and found that the rupture occurred just at the vaginal junction. In the next case I saw the patient was moribund at the time. The arm was protruding and without any effort on my part at all, simply the slightest pain, the child disappeared well up in the abdominal cavity. The mother was moribund at the time, but I didn't wish her to die, so I extracted the child and made an autopsy as soon as she died, and found exactly the same state of affairs, the difference between the two cases being that the effort of the physicians did the rupturing in one and the other was done by natural effort, because in both cases the child was born before the rupture had taken place.

Dr. Hunter McGuire.—I would like to urge a little conservatism about these things. Of course, every case has to be considered by itself, but briefly I would like to mention two cases that are in my hospital,—no, three cases, one in another hospital. One a woman, four and a half months pregnant, fibroids as soon as conception took place and something was necessary to be done. This woman is from Prince Edward county. I opened the abdomen and took out the tumor and left the uterus. In that case before two weeks had passed abortion occurred and the woman lost her child. The second case I did a similar operation very much like the first, and that woman is still carrying her child and is ready to go home. I mean to say that we ought to have some concern for the baby. We have no right to destroy it if there are other means available. In both these cases the tumors are gone but the wombs are there and in one case the child is still living. I have a woman in the Virginia hospital upon whom I will operate as soon as I get home, who came last year to the same hospital with large fibroid tumor. I found out that one of the young gentlemen had produced abortion on that woman, destroyed the baby and sent her home. She has come back this year in the same condition. I don't think we have got a right to let that man continue this operation, killing baby after baby, therefore, when I get home I am going to open the abdomen and see if I can't remove that tumor and leave that baby, and in all probability stand a very good chance of saving that baby's life.

Dr. Stanton.—I just wish to thank the gentlemen for the discussion. Dr. Nelson's remarks upon the rupture of the vagina recalled to my mind another case of the same character, this case, Dr. Cox, in my absence delivered, and I don't recollect the position of the head, but anyway he had to deliver with forceps, and as soon as he delivered the child he found that the vagina was ruptured.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D. ROBERT D. JEWETT, M. D. W. H. WAKEFIELD, M. D.
Editors and Proprietors.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.	R. L. PAYNE, M. D., Norfolk, Va.
J. HOWELL WAY, M. D., Waynesville, N. C.	H. S. LOTT, M. D., Winston, N. C.
J. ALLISON HODGES, M. D., Richmond, Va.	J. W. LONG, M. D., Salisbury, N. C.
S. WESTRY BATTLE, M. D., Asheville, N. C.	H. A. ROYSTER, M. D., Raleigh, N. C.
GEO. G. THOMAS, M. D., Wilmington, N. C.	ALBERT ANDERSON, M. D., Wilson, N. C.
J. P. MONROE, M. D., Davidson, N. C.	

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

BUBONIC PLAGUE.

The recent occurrence of several cases of this dreaded disease among certain physicians and laboratory attendants in Vienna, who were engaged in the cultivation of the specific bacillus for experimental purposes, created something of a panic in that city, and resulted in a governmental investigation.

The Journal of the American Medical Association gives the following interesting account of the unusual manner in which, what was feared for a time might prove a serious epidemic, occurred :

"This work had been going on for over a year with many very interesting results. The two physicians and an attendant were the only persons who came in direct contact with the virus. The attendant fed the animals experimented upon, handled them, and cleaned the floors, and observed all the precautions supposed necessary to prevent accident. He also disposed of the carcasses of the animals. Suddenly he was seized with the plague and died. Two nurses who attended him were taken with the same plague and died also. Dr. Muller, an expert, who had been in India studying

the same epidemic on the spot, and who visited the attendant, was also seized with the same disease and died.

All the three physicians had been engaged in the profuse cultivation of this bacillus in its most virulent form, and in the study of means of prevention, and were experienced bacteriologists. They knew of the danger and had provided against accidents up to this time. It appears from a court examination that the attendant, although a trained man and very careful, was often under the influence of spirits. It is supposed that he must have neglected some sanitary precaution in laying down his pipe in an infected place and using it again, or in failing to wash his hands after handling the animals. The nurses and the doctor were equally incautious and lost their lives through this neglect.

The facts pointed out by the foreign journals commenting on this event are that very few accidents occur in the extensive laboratory examinations now going on in all the large cities. The most virulent poisons and bacilli are cultivated and handled without accidents, showing what intelligent care and exact work can do. Of course this event gives renewed emphasis to the danger from this bacillus, and shows that the plague can be grown and spread in any community by the slightest neglect of sanitary conditions."

The earliest reliable mention in history of this disease was in the 3rd century, B. C., but it is most probable that it has existed in the far East from time immemorial. In China and India it is supposed to have been endemic for centuries.

From oriental countries it frequently swept over Europe in violent epidemics, particularly during the mediæval period, where it was productive of the most frightful loss of life, whole cities and communities being blotted out.

During the 14th century the plague visited London in an epidemic of great fatality, receiving the popular name of "Black Death" from the blackened appearance of its victims after death, due to extravasated blood.

As previously stated, the disease is always present in a more or less severe form in eastern countries, the recent terrible epidemic in Bombay (1896-97) being fresh in our minds.

Modern medical and sanitary science has however placed an effectual barrier to its spread in more enlightened countries, the last European epidemic occurring in Russia in 1878-79. With this exception Europe has been free from invasion for many years.

MEETING OF THE TRI-STATE MEDICAL SOCIETY.

The first meeting of the Tri-State Medical Society, held in this city on January 18th, was highly creditable to the new organization. Virginia stood first in point of attendance, but the indications are favorable for a good membership from both North and South Carolina.

The papers read were of a superior order and the discussions were instructive and interesting. The number of contributions offered was quite large, but the society attended strictly to business and the programme was completed before adjournment.

Dr. W. H. H. Cobb, of Goldsboro, N. C., presided with ability, and to him and to the general Secretary of the Society, Dr. Paulus A. Irving, of Richmond, Va., was largely due the success of the meeting. We publish elsewhere at more length the proceedings of the Society.

Charleston, S. C., was selected as the next place of meeting, and no doubt the reputation of that city as a medical centre will ensure a large attendance

The Seaboard Medical Association.—The meeting of the Seaboard Medical Association held in Wilson, N. C., Jan. 12th and 13th was a most successful one. The association is rapidly growing and will in the near future become one of the strongest bodies in the South. The following officers were elected: President, Dr. Lucien Lofton, Emporia, Va.; 1st Vice-President, Dr. G. G. Thomas, Wilmington, N. C.; 2nd Vice-President, Dr. E. L. Phillips, Suffolk, Va.; Secretary, Dr. John C. Radman, Washington, N. C.; Treasurer, Dr. C. O. H. Laughinghouse, Greenville, N. C. The next meeting of the Association will in all probability be announced in a very short while, and likely one of the larger towns of Eastern Virginia will be selected.

To Join the Local Medical Society is the duty of every physician—first, because it is to his personal interest to become acquainted with his fellow-practitioners in the same kind and field of work, and to learn from them the results of their experience; and secondly, because he thus benefits his profession. In season and out of season everyone must advocate the necessity of professional unity, and only by the collective action of the physicians of a locality can influence be brought to bear upon the entire body.

Necrology.

ROYSTER.—Thomas S. Royster, M. D., was born at La Grange, Granville (now Vance) County, N. C., September 14th, 1856. He died at Townesville, N. C., November 7th, 1898.

Dr. Royster took his medical course at Bellevue College of Surgeons from which institution he was graduated in 1882, having stood high in his classes throughout his sojourn there. He returned at once to his old home where he lived for three years, and then located at Townesville, Vance County, where he spent the remainder of his most useful life.

From the time of graduation until within a few months of his death he devoted himself most faithfully to the practice of his profession. As a physician he was able and efficient. He kept well abreast with the advance of the times, and was ever ready to use his skill in ministering to the sick and suffering. His very presence in the sick-room was a benediction. His patients loved him, and wherever he was known he was held in high esteem. Other physicians found him a safe counsellor.

As a friend he was ever kind and true. His courteous bearing won him many warm admirers. His loyalty to all that is noble and honorable led those who knew him to trust him implicitly, nor was their confidence misplaced.

In his home he was gentle and affable. He married Miss Sallie Alston in 1884. His devotion to her and to his four children was touching. In his last days when fully conscious that the end was near he had no fear for himself. His anxiety was for the dear loved ones whom he knew he had to leave. But these too he committed to the keeping of the loving, tender Savior, whom he had trusted long ago and had found so faithful. In all his relations in life he manifested a noble character, and in and above all in his life there was evidence of the fact that he was a true Christian. He "adorned the doctrine of God our Savior." And now in His presence, he awaits the blessed Resurrection morn. W. T. W.

As we go to press it becomes our painful duty to record the death of Dr. Geo. A Foote, of Warrenton, N. C., a most useful and prominent citizen.

News and Items.

Artificial legs and arms were in use in Egypt as early as B. C. 700.

According to rumor, the German Empress has fallen a victim to consumption. In the last two years, her weight has fallen to 124 pounds.

A German biologist has calculated that the human brain contains 300,000,000 nerve cells, 5,000,000 of which die and are succeeded by new ones every day.

Caroline Crob, of Boston, has left \$100,000 to two prominent physicians of that city for investigations, to find some way of curing cancer, consumption, and other diseases now regarded as incurable.

I do not believe in operating on all cases of appendicitis. I'd rather have a live man with an appendix than a dead one without one. I do not believe with the witty Frenchman that no case is complete without a post-mortem. If the patient is no worse after forty-eight hours of observation, let him alone; let him get well.—*W. W. Keen.*

The *Medical and Surgical Review of Reviews* is the name of a new journal published in London, under the editorial management of Dr. Nathan E. Boyd.

The last victim of the plague in Vienna has recovered, and the outbreak is at an end. Dr. Rudolph Poch, who treated those attacked, shutting himself up in the pavilion with them, has received from the Emperor of Austria the Knight's Cross of the Francis Joseph Order, in recognition of his bravery and devotion.

Care of the Soldiers' Feet.—A new branch of the British army service is about to be established, the adjutant-general having directed the chief of the surgical staff at Aldershot to form a class of non-commissioned officers for instruction as chiropodists.

Strong Antiseptics.—The use of very strong antiseptics rather hinders than promotes the repair of Tissues. In an operation wound that has been made under strict asepsis, the less washing out the better.—*Int. Jour. Surg.*

Dr. and Mrs. E. R. Russell, of Hickory, N C., are candidates for the congratulation of the entire profession. In December there was born to them a fine son.

Physicians and Horseless Carriages.—Two physicians of Brooklyn have abandoned the horse and buggy and have adopted the horseless carriage. These auto-mobiles can be started, stopped, or backed quickly and accurately by a single movement of the lever.

Centenarians.—A woman died in this city last week who would have been one hundred and two years old had she lived six days longer. An old lady in New Hampshire celebrated the hundredth anniversary of her birth on January 3rd by taking a sleigh ride, the thermometer registering at the time 20° below zero.

Bright-red spectacles, accompanied by internal doses of calomel, form a new German specific against seasickness. Seasickness is due to a lack of blood in the brain, while (according to Epstein's investigations) red sends blood to the brain with a rush. By looking at one point for some time through the red glasses the patient is cured radically.

The State Board of Medical Examination and Registration of Indiana has begun prosecution proceedings against one H. J. Jones for practicing without a license. Jones is an osteopath, and the case will be likely to bring into official cognizance the acts of these people, whom a correspondent aptly describes as "the best organized and most dangerous set of charlatans of the age."

In the *Bulletin del Conesjo Superior de Salubridad* of February, Dr. Ruveltos, a public vaccinator of Mexico, states that in twenty-eight persons vaccinated whilst they were suffering from whooping-cough, the frequency and violence of the attacks notably diminished from the moment of vaccination, and that when the pustules reached maturity the patients were almost or entirely cured.

Too Bad to Die.—A poor little street arab was brought into a hospital by the police. He had been run over by a 'bus and was badly injured. The chaplain was sent for, as it was thought impossible that the boy could live many hours. With little tact the chaplain began the interview thus: "My boy, the doctors think you are very much hurt. Have you been a good little boy?" Boy (much bored): "You git aout." Chaplain (shocked): "But I am afraid that you are not a good little boy, and you know you may perhaps be going to die." Boy (anxious to end the interview): "Well, 'tain't none o' your business any'ow. Wot's me death got to do with you? 'Ave you got a pal in the coffin line?"—*British Medical Journal*.

Society Proceedings.

Tri-State (S. C., N. C. and Va.) Medical Society.

Organization meeting in Charlotte, N. C., January 18th and 19th, 1899.

The Society was called to order at 11 a. m., on Wednesday, January 18th, by Dr. E. C. Register, of Charlotte, and divine blessing invoked by H. F. Chreitzberg, D. D., of Charlotte, after which Col. H. C. Jones, of Charlotte, in his inimitable manner welcomed the Convention, extending to all visitors the freedom of the city.

Dr. Hugh T. Nelson, of Charlottesville, Va., responded to the address of welcome in a graceful and happy speech.

The Society being now ready for business, Dr. W. H. H. Cobb, of Goldsboro, N. C., the Temporary President, took the chair.

The first act of the president was to appoint a committee on Constitution and By-Laws in order to have a permanent organization.

The following were appointed to act on this committee: Dr. J. C. Tompkins, of South Carolina; Dr. Paul Barringer, of Virginia; Dr. Geo. W. Long, of North Carolina.

Dr. Paul Barringer, of the University of Virginia, read the first paper; subject, "Purposes of the Tri-State Medical Organization," in which he set forth in a clear and concise manner the object of the Society.

Dr. J. M. Fladger, of Summerton, S. C., read a paper on "Pseudo-Membranous Enteritis," giving the history of an interesting case in his practice.

A paper by Dr. E. B. Glenn, of Asheville, N. C., "Cold as a Remedial Agent," was, owing to the author's absence, read by title.

Dr. J. N. Upshur, of Richmond, Va., now read a paper on "Lithemia," in which he advocated earnestly dietic treatment, cutting down the nitrogenous foods, except milk. The discussion of this paper brought out many points in regard to gout and was most instructive.

THE AFTERNOON SESSION.

The first order of business was the report of the Committee on By-Laws, which was read by Dr. J. C. Tompkins, Chairman, and after considerable discussion and slight amendments was adopted.

A paper was now read by Dr. A. B. Knowlton, of Columbia, S. C., on "Simultaneous Blood Washing and Blood Letting in Uraemia," followed by instructive discussion.

"A Plea for the Earlier Recognition of Pulmonary Consumption," was the title of a paper read by Dr. L. F. High, of Danville, Va.

Dr. John Dunn, of Richmond, Va., read a paper, "Remarks on the Relation of Diet to Hay Fever and Asthma," which elicited considerable discussion and brought out many interesting points concerning these diseases and their treatment.

Dr. Geo. W. Long, of Graham, read a paper; subject, "Appendicitis Complicated with Intestinal Perforation," giving the history of an unusual case. Discussed by J. W. Long and Faison.

"The Diagnosis and Treatment of Tubercular Peritonitis," was the subject of a paper now read by Dr. W. L. Robinson, of Danville, Va., who was followed by Dr. D. A. Stanton, of High Point, with a paper on "Dystocia," which was discussed by Drs. J. W. Long, Walton, Ben Johnston, Parrott, Nelson and Hunter McGuire.

Dr. L. G. Frazer, of Youngstown, N. C., read an instructive paper "Ovarites; Acute and Chronic," and was followed by Dr. H. B. Weaver, of Asheville, N. C., whose paper "Modern Views on the Nature and Treatment of Pulmonary Consumption" was ably discussed by Drs. Levy, Burroughs, High, McAnnally and Upshur.

Dr. W. T. Woodley, of Charlotte, addressed the Society on "Application of Electricity to Diseases of Women," which was discussed by Drs. Walton and Knowlton.

Dr. J. W. Long requested, owing to the number of able papers yet to be read by gentlemen from a distance, that he be allowed to read his paper "Drainage in Abdominal Surgery" by title.

Dr. J. A. White, of Richmond, read a paper, subject, "Headache, Ocular and Nasal;" discussed by Drs. Kollock, Kuyk, Dunn and Davidson.

Dr. Kollock, of Charleston, followed with a most interesting paper, being "Report of a Case of Complete and Partial Ophthalmoplegia of the Right Eye;" discussed by Upshur and Dunn.

The following papers were read by title:

Brief Report of Cases, Dr. J. S. Brown, Salisbury, Some Practical Points in the Treatment of Diphtheria, by Dr. R. D. Garcin, Richmond. The Medical Examining Boards of N. C. and Va.,

Their Relation to Each Other and the Profession, by Dr. A. S. Preddy, Richmond; State Institutions for Epileptics, Dr. H. S. MacLean, Richmond; The Medical Treatment of Appendicitis, Chas. B. McAunty.

NIGHT SESSION.

The night session was held in the parlor of the Central Hotel, the following being the order of business:

Dr. W. H. Wakefield, of Charlotte, N. C., read paper on "The Eye as a Causative Factor in Functional Nervous Diseases," which was discussed by Drs. Kollock and Kuyk.

"Treatment of Fractures," was the subject of paper read by Dr. Hugh T. Nelson, of Charlottesville, Va. Discussed by Drs. Bahnson and Johnston.

Dr. E. C. Levy, of Richmond, Va., read paper on "What Medicine Owes to Bacteriology." Discussed by Drs. Weaver, Burroughs and Kollock.

Dr. Dirk Adrian Kuyk, Richmond, Va., read paper on "The Influence of Chronic Nasal Occlusion on Cerebration." Discussed by Dr. W. S. Davidson.

The following committee on publication was appointed: Dr. Hugh M. Taylor, Richmond, Va., Dr. J. N. Upshur, Richmond, Va.

The following gentlemen were, on ballot, elected members of the Executive Council:

NORTH CAROLINA.

Dr. J. W. Long, Salisbury, to serve three years; Dr. J. A. Burroughs, Asheville, to serve two years; Dr. E. C. Register, Charlotte, to serve one year.

SOUTH CAROLINA.

Dr. S. C. Baker, to serve three years; Dr. J. C. Tompkins, to serve two years; Dr. J. M. Fladger, to serve one year.

VIRGINIA.

Dr. Hugh T. Nelson, Charlottesville, three years; Dr. W. L. Robinson, Danville, two years; Dr. A. S. Preddy, one year.

The Executive Committee made the following nominations:

President, Dr. W. H. H. Cobb.

Vice-President from Virginia, Dr. W. L. Robinson.

Vice-President from South Carolina, Dr. C. W. Kollock.

Vice-President from North Carolina, Dr. H. B. Weaver.

Secretary and Treasurer, Dr. Paulus A. Irving.

Dr. Hunter McGuire read his paper on "Diagnosis and Treatment of Cancer of the Breast" which was discussed by Drs. Weaver, Barringer and Robinson and also recommended the following as a subject for discussion as presented by the By-Laws, at the next annual meeting.

THE SOUTHERN NEGRO.

- (1.) His Hereditary Tendencies, as learned from his race history in America and Africa.
- (2.) His Racial Fecundity; the influence of climate, city and country life.
- (3.) His Race Mortality, in childhood, in adult life, in city and country.
- (4.) His Recent Erratic Tendencies; the cause, suggestions as to prevention.

Caustic Paste for Dermatotherapeutic Use.—Unna recommends (*Sem. med.*, XVIII, p. 162) the following formula as a caustic paste for dermatotherapeutic use:

Caustic Potassa, 5 parts.
Calcined Lime, 5 parts.
Black Soap, 5 parts.
Distilled Water, 5 parts.
Mix, and add:
Morphine Alkaloid, 1 to 2 parts.

This paste, which the soap and water render unctuous, and in which the lime prevents the too rapid action of the atmospheric carbonic acid on the potassa, may be advantageously employed in certain localized cutaneous lesions. The paste is easily tolerated, due to the morphine present in it, as the pain, which is at first quite sharp, rapidly diminishes and entirely disappears in half an hour, no longer being felt even when the paste is permitted to exercise its caustic action for twenty-four hours. On account of the considerable proportion of morphine present, however, the paste can only be applied to limited areas.—*Am. Med. Surg. Bul.*

Book Reviews.

Horton's Physicians' Perpetual Daily, Weekly and Monthly Record Sheet.

This Record Sheet is a very convenient form of visiting list so arranged that more names can be entered and all seen at a glance, than in any other monthly pocket-list.

It does away with the old style, bulky visiting list and takes the place of the ordinary day book and is an aid to rapid posting of accounts to the ledger. It is perpetual, and space can be used as required.

It may be used with any system of bookkeeping.

It enables the physician to enjoy the pleasure of using a fresh, clean record sheet in place of the old style bulky book. Sold only by the publisher, Dr. Alex F. Horton, Brooklyn, N. Y., at \$1.00 for 30 Patients Weekly—56 weeks.

Diet for the Sick. BY MISS E. HIBBARD and MRS. EMMA DRANT, Matrons at two large hospitals in Detroit—103 pages; board sides, postpaid 25 cents. The Illustrated Medical Journal Co., Detroit, Mich., Publishers.

This is the Third Edition of this handy and popular little book. The receipts for dishes for the sick are all the result of experience and are those largely used in the Detroit hospitals.

The booklet is intended to be given to the family by the physician, and for such purposes, one-half dozen will be sent, postpaid, on receipt of \$1.00. Proper food for the sick is often the "best medicine" for them, and this little book is brimfull of usefull food-knowledge.

A Pocket Medical Dictionary.

Messrs. P. Blakiston's Son & Co. have issued a new edition of Gould's Pocket Medical Dictionary containing over 21,000 medical and technical words—including all the principal words used in medicine and the collateral sciences—giving their pronunciation and definition.

The definitions are lucid and concise, and are framed in the terms supplied by the latest authoritative literature, rather than by purely philological method. This volume is nicely bound in leather and can easily be carried in the pocket. It is very convenient for the medical student, and also for the busy doctor desiring to hurriedly look up the meaning of any term or word that has escaped his memory. Price \$1.00.

The Physician's Visiting List (Lindsay & Blakiston's) for 1899. Forty-eighth year of its publication. Sold by all Booksellers and Druggists. Philadelphia—P. Blakiston, Son & Co.

The Physician's Visiting List is much like the one of last year, and is the oldest list published. It is of very convenient form, and while it remains so popular with physicians it will probably not be changed. One item worth noticing is the convenient size of the book, rendering it less burdensome to the coat pocket than others of the same class. The binding is of excellent leather, of sufficient strength for a year's use in the pocket. It is issued for 25, 50, 75 and 100 patients per day or week.

Review of Medical and Surgical Progress.

Treatment of Pneumonia.—In a very interesting paper Dr. Morris Mauges (*Medical News*) discusses the treatment of Acute Labor Pneumonia in Adults. He quotes the records of the Massachusetts General Hospital, showing 1,000 cases of Acute Pneumonia occurring from 1822 to 1889, in which, after eliminating all doubtful cases, i. e. "where death could be reasonably accounted for, that is to say, all who died who were over 50 years of age, were intemperate, delicate, or had complications." The mortality rate was practically the same in the last decade with all the modern change of treatment, and knowledge of pathology as it was in 1822 when such cases were managed by free bleeding, purgation and blisters. Thus for a period of 60 years or more the medical treatment of pneumonia has shown no material improvement so far as the mortality rate is concerned.

The author claims that there is no escape from the conclusion that at present we are powerless to directly influence the course of the disease. He has, however, great hope in the ultimate discovery of an antitoxin treatment that will furnish an efficient means of overcoming the pneumococcus toxemia. Hitherto all efforts in this direction have been unsuccessful and the difficulties in the way are very numerous.

After showing that some cases require only careful watching and good nursing to insure recovery, Dr. Mauges goes on to discuss with great conciseness, those cases which demand medical interference.

When treatment is required it must be directed against the toxemia. Its object is fivefold: (1) To maintain life; (2) to support the heart; (3) to control undue fever; (4) to relieve suffering; (5) to control complications.

I. *To Maintain Life.*—This includes the nursing and diet, which are too familiar to require any details. I wish, however, to emphasize the importance of watching the stomach, for not enough attention is paid to ascertain whether it be unduly distended with gas or improperly digested food; even liquids may be improperly disposed of by the stomach. Routine percussion of the stomach is far more important than routine examination of the lungs. The heart must be spared in every way; let its burdens not be unnecessarily increased by upward displacement from the unduly distended

stomach and intestines. All articles of diet which may produce flatulence must be rigidly excluded, and the milk must be adapted to the patient both in quantity and in preparation. Do not over-feed these patients; the disease is a very short one, and the patient's surplus fat and tissues will supply any deficit in the diet. Spare the stomach from undue medication as much as possible, and use the hypodermatic method in preference. Give water freely, either cold, hot, or carbonated (unless the patient is cyanotic), for it allays the thirst, reduces the fever and increases the elimination of toxins by promoting free diuresis. For the latter purpose the combination of a light Moselle wine with an alkaline mineral water is exceedingly useful.

II. *To Support the Heart.*—As well described by Douglas Powell, the dangers are three in number: (a) Impaired nerve power on the part of the pneumogastric branches of the cardiac plexus; (b) impaired nutrition of the hard-working heart-muscle from insufficient or badly aerated blood-supply; (c) mechanical tendency to overdistention of the right cavities and to depletion of the left cavities of blood.

The drugs which best meet these indications are strychnin, caffein, and nitroglycerin. Strychnin and nitroglycerin are best given in reliable tablets, the caffein in solutions of the benzoate or salicylate. If the results are not promptly obtained the drugs should all be administered hypodermatically. Nor should we hesitate to use them freely, for the action of each is clean cut, and any overdosage can be recognized very readily. My own experience has convinced me of the value of large doses of strychnin, to which Roosevelt called attention, in tiding a heart through the crisis. For the same purpose we may also resort to the hypodermatic injection of camphor in sweet almond oil. Osler also reports good results from hypodermoclysis. A struggling heart is often aided by an ice-bag over the precordium.

Van Stantvoord has very recently published an interesting paper, which throws an entirely different light on the subject of heart failure in pneumonia. His views are based upon the important experiments of Romberg, which proved that the cardiac weakness in pneumococcus toxemia is due mainly to a vasomotor paralysis, it being clearly demonstrated that arterial pressure is low as the result of relaxation of the peripheral blood-vessels. This is entirely opposed to the prevailing view that the characteristic pulse

in pneumonia is one of high tension. If subsequent observations prove the correctness of these views we should be cautious in the use of nitro-glycerine for obvious reasons and should restrict its use to the temporary relief of embarrassment of the right heart.

These experiments may also clear up the question of the use of digitalis in pneumonia, about which so much bitter discussion has been waged. The extreme views of Petresco have not found favor. In answer to the low mortality of 2.06 per cent. reported by him and his school in 825 cases (I believe most of these cases were in soldiers, his statistics being those of the military hospital at Bucharest,) I may cite the extremely low mortality of 3.06 per cent. in 40,000 German soldiers. Petresco has certainly demonstrated that the danger from these colossal doses of digitalis (12 grams or 180 grains daily) is small, but according to Reiner they must not be continued more than two days at the utmost. Another explanation of the tolerance for these large doses may be found in the experiments of Brunton and Cash, which clearly show that the action of digitalis is lessened in febrile conditions. A safe guide for the use of this drug is that given by Von Juergensen: "Digitalis is indicated as soon as the pulse rises in frequency and at the same time becomes irregular without any demonstrable cause in patients whose hearts were weak before the attack, or in patients whose hearts have weakened during the course of the disease. The fulness or emptiness of the pulse is important in determining this; if it is still full we can afford to wait a little, especially toward the end of the disease when not infrequently one of the indications of an impending favorable turn is slight irregularity of the pulse."

III. *To Control Hyperpyrexia.*—In considering this indication it should always be borne in mind that temperatures ranging up to 104°F, are as normal a feature of pneumonia as dyspnea and rusty sputum. The view which is now generally accepted is that fevers up to this point are the normal reaction of the organism to the invading pneumococci. That these "normal" fevers are even of service to the patient is well shown in a table published by Douglas Powell, in which he demonstrates that pneumococci grow to perfection at 35° and 37° C. (95° to 98.6° F.) and not at all at 40° to 42° C. (104° to 107.6° F.). He also directs attention to the value of the leucocytosis of fever in removing torpid or inert cocci. But, as in all symptoms of pneumonia, we must individualize, for in some patients a fever of 102° F. may inflict more damage than 105° may

in others. The thermometer, then, is not the only gage as to the question of the fever being unduly high; the true guide is the patient's general condition.

The use of large, flat ice-bags is the most convenient method for the reduction of undue fever, two or three being applied to the affected area. They are usually well borne and and not a little to the patient's comfort. The ice-bag, however, is no specific against pneumonia, as Mays would have us believe. Occasionally the prolonged use of ice-bags causes intercostal neuritis, as I have observed in two cases. When the nervous symptoms are very pronounced we should not hesitate to resort to cold baths, using them in the same way and on the same general principles as in typhoid fever. If less heroic measures be preferred prolonged immersion in luke-warm baths (90° F.) may be used instead. The contraindications to cold baths are very extensive consolidation of the lungs, marked adynamia, very rapid breathing, feeble heart-action, and arteriosclerosis. Cold sponging and cold packs are often useful. Baruch recommends moist compresses which envelope the entire chest; their antipyretic effect is not very marked and extensive furunculosis (due to the staphylococcus aureus) was noted in two cases at the Mount Sinai Hospital. The large doses of quinin which formerly found so much favor are now seldom employed. The routine usage of the coal-tar products is now, fortunately, discarded; the occasional use of them in small doses is not objectionable.

IV. *To Relieve Suffering.*—The most striking indication under this head is the relief of the pleuritic stitches and the distressing coughs which wear out the patients and rob them of their much-needed sleep. These are best relieved by the hypodermatic injection of morphin, which may be resorted to as soon as possible without unnecessarily weakening the patient by temporizing with other means. The Paquelin cautery often acts magically in quieting pleuritic irritation; no one who has ever used it will temporize with sinapisms, blisters, leeches, poultices, etc. The ice-bag is also very valuable but does not act as promptly as either of the above. Quite recently I have been using a new drug, heroin (diacetic-acid-ester of morphin,) as a sedative for these thoracic symptoms, and, so far as my present experience will allow me to judge, I believe that this drug will be found to be a valuable aid in quieting distressing coughs. It has acted well in some cases which were not relieved by codeine. It is given in tablet triturations or powders in doses of $\frac{1}{12}$ to $\frac{1}{8}$ of a grain every four hours.

Sleep is an imperative necessity for an overworked patient with pneumonia; to secure it is one of the most imperative indications in the treatment. The nervous exhaustion of which it is often the first herald, may be prevented by the timely use of hypnotics. Of these morphin and chloral are the best. Chloral, when combined with a cardiac tonic is perfectly safe. Balfour, the veteran clinician of Edinburgh, is most enthusiastic in his praise of it. We may also resort to cold packs or alcohol.

Of the value of oxygen in the relief of dyspnea and cyanosis it is difficult to give a final judgment. The opinion is slowly but surely gaining ground among the great clinicians that oxygen has been much overrated in the treatment of pneumonia. Theoretically its employment seems to be so well founded and its application is so simple, the apparent relief so striking that the universality of its use is not at all strange. But does it really do any good in those cases in which we want its effects most? The primary effects soon wear off in serious cases and the dyspnea and cyanosis increase in spite of its free use. Let the enthusiast for oxygen remember that the lung is just as consolidated immediately after the crisis as it was before it, and yet what a change there is in the patient's breathing. This proves that the dyspnea is not entirely mechanical in origin as is generally thought, but is mainly the result of the pneumococcus toxemia. In tiding the patient over sudden attacks of dyspnea and cyanosis oxygen is most useful.

V. *To Control Complications.*—Of these the most important are pleurisy with effusion, empyema, pericarditis, and endocarditis. The treatment of these conditions in pneumonia differs in no wise from that ordinarily pursued and hence requires no special discussion. However, it may be added that effusions into the chest, either serous or purulent, ought to be removed as soon as the amount of fluid becomes large enough to interfere with the lung in any way.

Combined Typhoid and Malarial Infection.—(Irving Phillips Lyon, M. D., *Am. Jour. Med. Sci.*, Jan., 1899.) The paper is based on the reports of thirty cases that meet the following conditions:

1. That typhoid fever and malarial fever coexist in the same individual.

2. That this coexistence be shown (a) by the discovery of the parasites of malarial disease in the blood, and (b) by strong evidence clinical, pathological, bacteriological, etc., of true typhoid fever.

The advocates of the disease known as "typho-malarial fever" claim, as a rule, in America, that it is a prolonged fever, exhibiting typhoid characteristics, and ushered in and often accompanied during its course by repeated paroxysms of chill, high fever, and sweating. The onset of the disease is more abrupt than that of simple typhoid fever, and its termination is often by crisis. Billious symptoms are frequent. Jaundice, or an icteroid hue of the skin, is more common. Abdominal tenderness, distensions, etc., are usually present, though often slight. Diarrhea may or may not be present. Rose-spots seldom develop. The course of the fever is shorter and markedly milder than that of typhoid fever. The prognosis is highly favorable and the mortality very low. Severe symptoms, such as hemorrhage, perforation, etc., sometimes, though rarely, occur, as in simple typhoid fever. As to the value of quinine much diversity of opinion is found. All agree that it does not influence the course of the typhoid element, and many state that its influence in controlling the malarial manifestations is slight or entirely wanting. Others state that it is of distinct value in combatting the malarial element. Most of the French writers state that the course of the disease is usually severe and the mortality high; that complications are common; that rose-spots usually appear; that quinine has a modifying influence on the disease. Some French writers hold that the two diseases are merely superimposed, the one upon the other, each preserving its individuality, and others find that the clinical picture varies markedly in individual cases. As a rule the Italian observers hold that the two diseases are coincident and superimposed, each preserving its individuality. It is thus seen that the American description of "typho-malarial fever" differs essentially from the French.

A glance at the recorded cases shows that, as a rule, the course of the disease was of at least average severity as compared with typhoid fever and generally of greatly increased severity. Only one or two cases exhibited a mild course. The mortality was high. Ten of the thirty cases ended fatally, a mortality of 33.3 per cent. This high rate of mortality is nearly double that of typhoid fever, if we take a large body of typhoid statistics covering a long period of years and collected from different climates and regions of the world. Complications, often severe, are seen to have occurred in a large number of the cases. Rose-spots are specifically mentioned in twenty of the cases, and in several of the other cases they may have

occurred, although the notes are silent on this point. Quinine was given on the appearance of malarial manifestations in nearly all, if not, in fact, in all of the cases, and is seen to have had an unfailing influence, either controlling the malarial element for a period or removing it entirely from the scene. Quinine thus shows itself to be a true remedial agent, and appears to be as efficacious in controlling the malarial element in the combined infection as it is in uncomplicated cases of malarial fever. It is also of diagnostic value, second only in importance to the microscopical examination of the blood.

As to the clinical picture presented, no uniformity is found. The typhoid picture, however, was always present, and in nearly all of the cases dominated the scene. The malarial manifestations appeared at different points in the different cases. Repeated paroxysms of chill, fever, and sweating at the onset of the disease appeared in many of the cases, in this respect resembling the picture generally described in "typho-malarial" fever. In other cases these features were absent. In some of the cases febrile paroxysms occurred during the height of the disease and irregularly through its course, though this was the exception. In other cases the malarial paroxysms occurred only in the convalescence from the typhoid. It is interesting to note also that in several cases malarial paroxysms directly preceded or accompanied the onset of the typhoid, disappeared completely from view during its course and again reappeared during convalescence.

In these cases, then, the observations of the French, rather than of the American observers, are sustained. The important point of difference, clinically between the "typho-malarial fever" of the French and of the Americans is found in the severity and mortality of the disease. The probability is that the cases described by Southern writers as "typho-malarial" will prove, when scientific methods are used in studying the cases, to be either mild cases of simple typhoid or continued malarial fever. The cases where there is a true combining of the two diseases is very rare, in Johns Hopkins Hospital where hundreds of cases of each disease are treated only two such cases having been observed. In tropical countries, where malaria is more common and typhoid prevails the coincidence may occur more commonly.

Fear Neurosis.—Under the head of Fear Neurosis, Dr. Prince (*Boston Med. and Surg. Jour.*) describes a kind of morbid self con-

sciousness which he has observed quite frequently in musicians and others who appear frequently before the public. From numerous repetitions the physical and mental manifestation of this timidity persist even after the subject had acquired a great degree of confidence in his ability. The habit, so to speak, had become fixed upon his nervous system.

The following is one of several cases reported in detail:

"A professional singer, thirty years of age, consulted me for the following symptoms: Whenever he sang in public he was affected with (1) feeling of "goneness" and general trembling; (2) feeling of throbbing in the head; (3) palpitation; (4) perspiration; (5) general weakness. The same group of symptoms always appeared and in the same order. The trembling was objective, so that he could with difficulty hold his music. He had suffered in this way from ten to twelve years. He stated most emphatically that at present he had no lack of confidence in himself but, on the contrary, he had a high opinion of his own ability—in fact, as he expressed it, was rather 'stuck on himself.'

"He did not mind the symptoms *per se*, but they interfered so much with his work as to be a serious hindrance. For this reason he sought advice. He knew of no cause for his trouble, and did not ascribe it to shyness or timidity, as he did not feel shy or timid. He thought it might be due to some sort of organic nervous disease, and this idea and the importance of being able to fill a professional engagement led him to seek advice.

"If he was to give a concert, during the two or three days preceeding the appointed time these symptoms came on whenever he thought of the concert, that is, the idea of singing, and even practising, brought them on. He also had then a desire to have a movement of the bowels. This circumstance emphasizes the independence of the neurotic process. Careful inquiry elicited the facts that as a boy he was abnormally shy and bashful, and that when he *first began to sing* he had no confidence in himself. At this time these symptoms developed. But since learning to sing his shyness ceased and he has regained thorough confidence in his ability, but the symptoms which were originally excited by timidity have persisted, so that a sort of paradoxical condition exists—the physiological manifestation of an emotion without the emotion itself. For it will be remarked that the symptoms in this case are only the ordinary manifestations of timidity and lack of confidence in one's self, such

as would be excited in a novice by the ordeal of a public performance.

"But in this case, by the law of association and by frequent repetition, they have been formed into an automatic process, so associated with the act of singing or idea of singing that either the act or the idea would excite the whole. But this, as the sequel will show, would not take place unless the subject made a suggestion to himself that this would occur. This suggestion was the apprehension or expectation that the neurosis would appear and spoil his performance.

This expectation was always present in his mind before a performance, and must be distinguished as something very distinct from timidity, which did not exist, as he thought. But I think it is open to question how far any one can analyze and state with precision the nature of his own state of consciousness at any particular moment. Nevertheless little more than traces of timidity was probably present. In other respects his health was good, excepting that he was a poor sleeper, but he was of a nervous temperament. Five or six years ago his health had temporarily broken down from overwork. After this he was worse."

The patient was given the following, written upon a piece of paper and he was requested to learn it by heart and keep it constantly in mind: I know my symptoms are only a group of nervous processes which a long while ago were associated together by a lack of confidence in my ability to sing. But having now this confidence and knowing the nature of the habit, I know this association will be broken and there is no need to apprehend a return of the symptoms.

This lesson was enforced by suggestion while in the hypnotic state, with the result, as stated, of a prompt cessation of the disturbing symptoms.

A Case of Carbolic Acid Poisoning Treated by Venesection and Injection of Saline Fluid; Rapid Recovery.—Oliver, in *The Lancet*, reports a case of an unmarried woman aged twenty-one years, who was admitted to the infirmary in a state of coma due to carbolic acid poisoning. The internal saphenous vein of the left leg was opened and eight ounces of blood was removed. Four pints of a normal saline solution at a temperature of 100° F. was then injected into the vein; $\frac{1}{80}$ grain of sulphate of atropine was given hypodermically to stimulate her respiratory center. Half a pint of milk beaten up with two eggs; to which was added one minim of croton oil, was

passed down the stomach tube. By degrees the patient, who at first seemed moribund, began to come round, her pulse gradually improved, and the respiratory movements became stronger. In a few hours she had rallied sufficiently to recognize those around her. Glycerin in drachm doses given frequently to allay the burning sensation in her throat and esophagus. On the following day, when seen by Dr. Oliver, she seemed remarkably well and the pulse was good. There was still pain on pressing the epigastrium. For three days the urine was dark-green in color; it contained phosphates, but never albumen. The wound made in the leg healed kindly, and recovery generally was rapid and complete.

In conclusion, Dr. Oliver says: "Once a poison like carbolic acid has got into the blood, washing out of the stomach is not enough. The rational treatment is, in addition, to transfuse, or to do as was done in this case, bleed and transfuse."

Is Leprosy Contagious?—In the *Med. Age*, Dec. 27, Dr. Roger S. Chew, long a resident at Calcutta, corroborates the statement made by Dr. Zambaco regarding the non-contagiousness of leprosy.

The profession at large has regarded leprosy as being contagious to a degree that rendered isolation a necessary safeguard against the spread of the disease, but the observation of Drs. Chew and Zambaco would indicate that this loathsome disease is contagious to only a feeble degree. Dr. Chew's observations extended over a period of 15 years and included 1,034 lepers; of these no less than 422 were cured of their disease while medicine failed to produce any permanent benefit on the remaining 612.

The writer calls attention to the fact that it is impossible to find contact more complete than in the procreative act, and yet there is ample evidence in India of numerous cases where people have lived together as man and wife for years, having children born to them, one of the parties being a leper of the worst degree, yet not infecting the other.

So also are there instances where the remaining members of a family have with impunity eaten, played and slept with a leprous brother or sister. The author gives short histories of several cases of undoubted leprosy in which the unfortunate lepers have gone in and out in their respective families and communities without apparently infecting others. Out of the 1,034 cases studied, 624 were married, and in only four cases did the husband infect the wife, while on three occasions the wife affected the husband, and while 44 of the married pairs had no children there were 1566 conceptions among the remaining 580—proving that the "sterility of lepers" is a myth, and that the probabilities are largely against contagion.

Eye, Ear, Nose and Throat Department.

In charge of W. H. WAKEFIELD, M. D., Charlotte, N. C.

The Cure of Cataract Without Operation.

This is one of the dreams that occur from time to time.

The "Absorption Quack" continues to delude his victims into paying him large sums to have their "imaginary" cataracts absorbed. Just now a homœopathic drug firm in the West is sending out literature setting forth the wonderful virtues of a particular drug—supplied by them only—and for which they charge the insignificant price of \$1.00 per fluid drachm.

It is needless to say that in reply to a letter addressed them asking for "testimony of reputable physicians" who had used the drug, none has been furnished showing that a single case of lenticular cataract has been cured by this or any other drug—more's the pity.

Water in Ophthalmic Practice.—E. E. Hamilton (*Am. Jour. Ophthalm.*, June, 1898) observes that atropia and other alkaloids are apt to deteriorate with age and should therefore be kept in a 3 to 4 per cent. solution of boric acid. Cold water is indicated in traumatism, to prevent or control hemorrhage, when the inflammatory process is unattended with severe pain; and in inflammation which is usually attended at some stage of the process with discharge of mucus or pus, or both. Conversely, hot water is indicated in the absence of recent injury, in the absence of mucus or pus, and in the presence of pain.

Cold is best applied with compresses taken from blocks of ice, and renewed with sufficient frequency to maintain the degree of cold required. Often they need to be changed once or twice a minute, and continued day and night. This means two nurses, who should be responsible. Heat is best applied with compresses taken from water, which may be used as hot as the finger will bear. In keratitis, water as hot as can be borne, dropped directly upon the cornea, has been recommended. Eye-cups with hot water may be used.

Poultices should not be used in ophthalmology.—*Am. Med.-Surg. Bull.*

The Surgical Treatment of Cataract.—Dr. Ernest F. Neve (*Indian Medical Record*), as the result of a careful review of seven hundred and thirty cases of extraction of cataract, arrives at the following conclusions: 1. Careful selection of cases is the most important factor of success. 2. Hardly second to it is the employment of scrupulous antiseptic technique. 3. A large percentage of eyes, the conjunctival sacs of which are in a doubtful condition, can nevertheless be operated upon with success after careful preliminary antiseptic and astringent treatment for days or weeks. 4. Under such conditions, however, naturally, the percentage of failure rises sharply. 5. But the measure of success attained amply justifies the additional risk. 6. Previous iritis has a particularly prejudicial effect on the results. 7. The omission of iridectomy, while producing excellent results in the majority of cases, does undoubtedly increase the risk of prolapse of the iris and also of occlusion. On the other hand, the danger of vitreous loss is diminished. 8. The attempt to extract the lens in its capsule is so frequently attended with vitreous loss that it should be restricted to cases where the lens nucleus is small. 9. As an all-round operation, von Graefe's linear extraction with iridectomy is the most suitable, and in the long run gives the best average results.—*New York Medical Journal*.

The Treatment of "Unripe" Cataracts is a subject of great interest to all surgeons who "operate for cataract." Even with antiseptic and improved operative technique the fact remains that it is extremely difficult to completely remove soft and loose cortical matter. There is no means of diagnosing with absolute certainty a completely ripe or sclerosed cataract; and in operating on even the densest in appearance often some cortical matter is left behind. In order to hasten the ripening of immature cataracts and thus shorten the weary period of waiting in semi-blindness various expedients have been resorted to. The lens has been removed in its capsule, but this operation is apt to be followed by prolapse of the vitreous or intra-ocular hemorrhage. Needling the lens is dangerous except in the young as in adults it is attended by risks of glaucoma, iritis, etc. Immediate extraction with iridectomy is to be preferred to any of the methods named, but in a large percentage of the cases, secondary operations, more or less dangerous will be required.

Irrigation of the anterior chamber, after extraction, has yielded good results in these cases; and recently Dr. McKeown, of Ireland, has proposed an additional mode of procedure which he has used successfully in a large number of cases. His method consists in combining inter-capsular injection with intra-ocular irrigation, using a sterile salt solution, 4 grains to the ounce of distilled water at blood heat. The doctor uses a special apparatus for this purpose and after making the corneal incision as in ordinary extraction he detaches the unripe and soft cortical matter by means of his hydraulic apparatus, washing it out of the eye, and then removes the hardened nucleus of the lens by means of the scoop.

The Operative Treatment of Pharyngeal Adenoids, is the title of a paper by Wurdemann, read before the Wisconsin Med. Society and published in *The Laryngoscope*. The author calls attention to the fact that the adenoid structures of the pharynx are of an appreciable size in the majority of children, but that shrinking usually takes place during adolescence if persistent or sufficiently enlarged to cause nasal or eustachian obstruction they should be removed.

Very few children of tender years have nasal catarrh. The so-called catarrh is generally in the naso-pharynx and is due to adenoids and is cured by their removal. The necessity for removal of these growths was not recognized until a few years ago. Nature cures many cases of adenoids and enlarged tonsils and it is only when symptoms of catarrh, mouth breathing and deafness appear that the cases are brought to the notice of the physician. Effective treatment of pronounced adenoid growth or enlarged tonsils is essentially surgical. Local medicinal applications are not to be considered as curative—they are merely palliative. Cleansing sprays do good but do not cure and the same is to be said of Syr. Ferri Iod.

The author reports 247 cases with operations upon 189 with satisfactory results in every case.

The operation was done in most cases under chloroform with the patient lying on the back the face being turned to the light. The operation preferred by the author is a combination, by the Gottstein Curette, pharyngeal forceps and finger nail. While the operation is somewhat bloody, in several hundred operations of this kind the author has seen none that gave rise to any anxiety on account on hemorrhage.

The results are *immediate* and always satisfactory. One of the principal reasons why the aurist is consulted in children having

adenoids is on account of deafness, due to eustachian obstruction. Operate and then Politzerize the middle ears for a rapid cure.

Enlargement of the Lingual Tonsil as the Cause of Cough.—

B. Robinson, before the American Laryngological Association (*Bost. Med. and Surg. Jour.*, Vol. CXXXIX, No. 10, p. 248), referred to enlargement of the lingual tonsil as a cause of cough being but poorly understood by the general practitioner. The beginning of this condition is insidious, especially in young adults. Those of a sluggish or lymphatic temperament are more subject to it. If the cough lasts but a short time the general practitioner usually ascribes it to the stomach or some reflex cause. Possibly he may think of laryngeal inflammation, and the laryngeal mirror may reveal an enlarged tonsil. In children of from 2 to 3 years of age, a laryngeal cough without reasonable cause is usually due to pressure on an enlarged lingual tonsil. An irritative cough is often the only symptom of acute congestion of the lingual tonsil; there is little to be found on inspection. All the symptoms are worse at night. Impaired condition of the general health or the continuance of a catarrhal relaxation are predisposing causes. The trouble may be also due to anemia, constipation, habitually irregular habits as regards food and rest, as also overfeeding and indulgence in pastry in young children.—*L.*

Care of Ears in Early Life.—The Laryngoscope Preventive treatment in childhood has largely decreased the number of those incapacitated for following the ordinary pursuits of life on account of deafness. The close connection between the naso-pharynx, pharynx and tonsils and the tympanum is in early life a source of danger as well as the increased liability of contracting certain diseases, as measles, scarlatina, etc.

The starting point for missionary work on the part of physicians in preventing ear diseases in children is to "acquire a realizing sense of the full importance a perfect ear is to the individual," and that the crippling of his whole life may often result from catarrhal otitis. The care of the ear in early life means the care of the nasal passages and throat as well as the care of the ear itself.

Therapeutic Hints.

For Infantile Chorea.—

Arsenous acid.....1½ grains.
Distilled water....3 fluidounces. Mix.
Dose: From one-half to seven teaspoonfuls daily.

—FILATOW.

Ointment for Hemorrhoids.—

R Chrysarobin, gr. 22.
Iodoform, gr. 9.
Ext. belladonna, gr. 18.
Vaseline, gr. 420.
M. Sig. Apply two or three times each day.—*Prac. Med.*

Amygdalitis.—

R Sodii benzoat., 3 j-iv.
Glycerini,
Elix. calisayæ, aa 3 j.
M. Sig. Teaspoonful every hour or two.—*Stevens N. Y. Poly.*

A Formula for Acute Gastroenteritis.—

Bismuth subnitrate, 4 drams.
Salol, 1 dram.
Camphorated tincture of opium, 3 fluidrams.
Tincture of ginger, 3 fluidrams.
Chalk-mixture, to make 3 fluidounces.
Mix. Two teaspoonfuls every three hours until the stools are formed; then one teaspoonful thrice daily.
—HERWIRSCH (*Phila. Polyclinic.*)

Severe Gastro-Intestinal Infections of Infancy.—

R Bihydrochlorate of quinine, 1 gm.
Asafetida, 1 gm.
Tinct. of musk, 1 gm.
Boiled water, 120 gm.
Yolk of one egg.
M. S. Use as an injection; this is sufficient for two or three injections.
—DR. FEDE, *Semaine Med.* September 28, 1898.

Irritable Bladder.—

R Benzoic acid, 1 drachm.
Borax, 4 scruples.
Sanmetto, 4 ounces.
M. Sig. Three tablespoonfuls a day to relieve frequent desire to urinate.

A Mouth Wash for Aphthæ in Children.—The ulcerations are to be touched four or five times per day with a brush rubbed in the following:

R Sodium biborate, 3 i.
Tinct. myrrhæ, 3 ii.
Blackberry syrup, 3 x.

To Anesthetize the Membrana Tympani.—

- R Ac. carbolic pur. }
 Menthol }
 Cocain hydrochlorat. } aa gr. xv.
 M. Sig. External use.

A small bit of absorbent cotton on a stylet is dipped in it and laid against the membrane, which is viewed through a speculum. A slight burning sensation is produced, but in two or three minutes the local anesthesia is complete, and an incision can be made painlessly. The mixture acts to some degree also as a caustic, as is evinced by a slight reddening of the membrane.

Trifacial Neuralgia and Migraine.—Apply, locally, a tampon moistened with the following: sulph. ether 50 gm., melissia alcohol 50 gm., menthol 20 gm. The pain vanishes with the refrigerating effect produced, and relief is experienced for hours.

Heat Aids Cocaine Anæsthesia.—If the solution of cocaine is warmed before using, on mucus surfaces its anæsthetic effect is more rapid, more intense and more lasting.—*Med Press.*

According to Radestock, the generally accepted dosage of potassium iodide in syphilis is rather too small. In one case he administered as much as 375 grains in one day, and has frequently given daily doses ranging from 150 to 225 grains. When well dissolved the salt becomes perfectly harmless for the stomach. In view of the high price of the salt, he thinks that iodine could be administered diluted in a syrup or wine. He recommends for this purpose Brown-Sequard's solution:

- R Iodini, gr. vi.
 Potass. iodidi, 3 ss.
 Aq. destil, 3 iss.

M. Sig. A teaspoonfull three times a day in a glass of wine before meals.

Facial Erysipelas—

- R Carbolic acid, 1 ounce.
 Tinct. iodine, 1 ounce.
 Alcohol, 1 ounce.
 Oil turpentine, 2 ounces.
 Glycerine, 3 ounces.

M. The lesions to be painted with this every two hours, and covered with aseptic gauze.—*Le Press Medicale.*

For Stomatitis from Smoking.—

- Salol, 1 part.
 Spirit of peppermint, 50 part.
 Tincture of catechu, 2 parts. Mix.

Dose: A teaspoonful in a glass of water, and to be used as a mouth-wash.

PRACTITIONER.

Goitre.—

R Iodini, (crystals) gr. i.
 Potassi iopidi, gr. ij.
 Alcoholis, 3 ij.
 Syr. simplicis, 3 i.
 Aquæ dest, 3 vi.

M. S. Take a teaspoonful in a half a glass of water four times daily.

About one-third of my cases during the past five years were treated with the thyroid extract, the others with iodine. The iodine treatment has given the quickest results.—DR. F. C. CHAFFER, *North American Practitioner*, October, 1898. .

Nutrient Enema in Carcinoma of the Stomach.

Yolks of eggs, 2.
 Dried peptone, 1 to 5 drams.
 Wine, 4 fluidounces.
 Bouillon, 8 fluidounces. Mix.

For Chapped Hands.—

Menthol, 1 part.
 Salol, 2 parts.
 Olive-oil, 3 parts.
 Linolin, 80 parts. Mix.
 Apply twice daily.

—RITTERBAND.

Alterative—Four Chlorides.—

Arsenic chlorid, 1 grain.
 Ammonium chlorid, 2 drams.
 Tincture of iron chlorid, 4 fluidrams.
 Mercuric chlorid, 1½ grains.
 Syrup, 3 fluidounces.
 Water to make, 6 fluidounces. Mix.
 Dose : One teaspoonful thrice daily.

Salol given in powder for a long time may result in favoring calculi. Since it is but slowly decomposed in the intestinal canal, symptoms of obstruction may be obviated by combining other powders with the salol.

Serum-Therapy.—Serums have been prepared and used with varying success in the following bacterial disturbances of the physical equilibrium, clinically known as diphtheria, smallpox, tetanus, tuberculosis, streptococcic infections, typhoid fever, bubonic plague, rabies, cholera, yellow fever, pneumonia, antrax, syphilis, snake poisoning, ricin poisoning, typhus fever, and cancer.—A. L. Mann.

Reading Notices.

THE TREATMENT OF "LA GRIPPE" OR EPIDEMIC INFLUENZA, By J. A. Hofheimer, M. D., Late Attending Surgeon, Harlem Hospital Dispensary, New York City.

"La Grippe" is an infectious disease whose specific germ is a bacillus possessing the power of segmentation or subdivision, thus multiplying with great rapidity when a favorable medium is attacked. It is taken into the body from the atmosphere through the nose and mouth. Its action causes a congestion of the air passages (nose, throat and lungs,) similar to acute catarrhal conditions.

Many people take upon themselves the risk of dosing with phenacetine, antipyrin, antifibrin, etc. These drugs should only be used under competent medical advice, for cases of dangerous syncope have followed upon the careless partaking of these remedies.

Among the drugs practically harmless and at the same time efficacious can be mentioned quinine. This drug in small doses strengthens the heart's action and reduces the fever, besides acting as an internal antiseptic. As quinine in small doses alone will not relieve the pains or headache, nor entirely reduce the fever, I have been in the habit of combining with it Phenalgin as follows:

Quinine three (3) grains in capsules, Phenalgin five or ten (5 or 10) grains in powders at one dose, to be taken every three hours. This formula has proven very successful in aborting what might have been a severe attack of "La Grippe," and rapidly curing milder cases.

In common with many of the profession, it had been my habit prior to my acquaintance with the stimulant non-depressant character of Phenalgin, to prescribe alcoholic stimulants when giving the other coal tar products, to overcome their depressing effect. But the free use of alcohol is always followed by great depression and reaction. The contrary is true of the coal-tar product Phenalgin. The action of this drug is soothing and its anodyne effect is usually followed by refreshing sleep.

DOUCHE FOR NASAL CATARRH, OZENA, ETC. —R Antikamnia and Codeine Tablets, No xxiv. Sig.—Crush and dissolve six tablets in a pint of tepid water and use one third as a douche three times a day. Shake well before using.

A DESIRABLE ANTISEPTIC.—As a deodorant and antiseptic for the sick room and for the dentist's office, Listerine stands pre-eminent. While it is equal to any and superior to most of the agents commonly used under such circumstances, it adds an agreeable aroma instead of an offensive odor to the surroundings; and is particularly well adapted

to the lying-in room. It may be freely used in spray or lotion without stain or irritation as an agreeable and effectual detergent. It is also specially commendable in weak solution as a mouth-wash and gargle for aphthous sores or a fungus condition of the gums and bad breath; and for certain forms of indigestion—those accompanied by disagreeable eructations—a few drops of Listerine in water is a particularly grateful and excellent remedy. Moreover, according to a series of "Experiments upon the Strength of Antiseptics," by Dr. A. T. Cabot (*Boston Medical and Surgical Journal*), Listerine compares favorably with the most reliable agents for the rapid destruction of micro-organisms.—*The Sanitarian*.

WEAK HEART. I have been using CACTINA PILLETS for some time, and it has never disappointed me. One young lady from Montana, whose mother would not leave her one minute day or night on account of her weak heart's action. I ordered one hundred CACTINA PILLETS, and in one month she could run and play, and seemed to have no further trouble. I am using it almost daily in my practice.

CALVIN D. VILAS, M. D.

Lake City, Minn.

CONVALESCING FROM THE GRIPPE.—One of the most unpleasant features of gripe cases is the prolonged period of convalescence, sometimes extending over several months, during which the patient struggles to regain his former vigor. This struggle may be shortened by paying special attention to promoting the vitality of the tissues and improving the quality of the blood. During the recent gripe epidemic cases have been especially characterized by disturbances of the gastrointestinal tract, and after the patient has recovered from the immediate effects of the disease, he is often left in a dyspeptic state, rendering it very difficult to administer nourishing foods and tonics. It is under these circumstances that the physician finds ferro-somatose of great value, as it not only supplies to the tissues a large quantity of readily assimilated food, but at the same time the requisite amount of iron in such form that it will not tax the digestive functions, and will be readily converted into the iron containing principle of the blood. Being both a food and tonic, free from any disturbing action upon the digestive organs, as well as agreeable to the palate and capable of administration in a variety of fluids, ferro-somatose commends itself especially during the prolonged convalescence of gripe cases.

NORTH CAROLINA MEDICAL JOURNAL.

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIII.

CHARLOTTE, FEBRUARY 5, 1899.

No. 3

Original Communications.

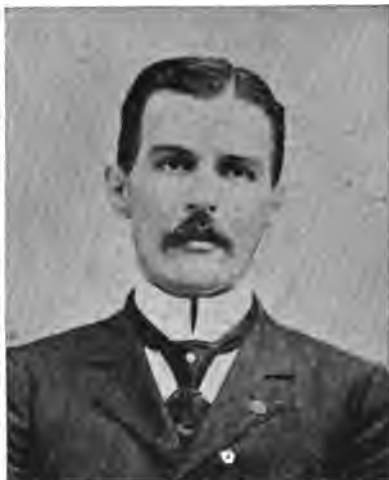
A Case of Complete and Partial Ophthalmoplegia of the Right Eye.*

By CHARLES W. KOLLOCK, M. D., Charleston, S. C.

 ON the 16th of January, 1896, Mr. W. consulted me about the condition of his right eye. The following history was elicited and is of considerable interest. The patient, a lawyer thirty six years of age, was married and wife and three children were living. The children are healthy. The wife had a miscarriage which was brought on by playing tennis. Patient had lost one brother from tuberculosis of the stomach and another from the same disease of the lungs, but his own health was generally good until 1890, when, while taking violent exercise, he had a hemorrhage, caused, his physician said, by the rupture of a small vessel in the throat. In the summer of 1884 he had a sore on his penis which was pronounced a chancroid by his physician and was treated by applications of caustic and calomel. No internal treatment was advised nor were there any signs of general infection. He was married in 1886; his wife is in perfect health and the children show no signs of hereditary disease. In the spring of 1891 the pupil of the right eye began to dilate and he consulted a physician who instilled a solution of eserine and prescribed glasses. In 1893 the left pupil began to dilate and became larger than the right, this condition continued for a year when the right pupil increased still further in size and the accommodation became paralyzed in that eye. About

*Read before the Tri-State Medical Society, Charlotte, N. C., January 18-20, 1899.

this time he began to be troubled by double vision. Early in 1895 he experienced difficulty in passing urine and this condition has increased so that the desire is never present and the urine is only voided after considerable straining. Coincident with this difficulty he noticed a numbness of the right side of the face which gradually increased until the mouth, nose, tongue and left side of the face were all affected in the same way and he could not taste food in the right side of the mouth. Speech was not affected but he was at times taken with choking or "gagging spells," which were distress-



No. 1.



No. 2.

Illustration No. 1 shows patient shortly after he came under my observation and No. 2 gives his appearance at the present time. In No. 1 by observing closely you can see a slight depression in the right temple.

ing and alarming to him and usually ended with eructations of wind. In the latter part of December 1895 the right upper lid began to droop and ptosis was soon complete. When seen by me a few weeks later there was absolute paralysis of every muscle supplied by the right oculo-motor nerve. Vision in both eyes was $\frac{15}{xxx}$. The refraction of the right eye was not corrected, but the left with + 1 cyl. ax. 150° , saw $\frac{15}{6}$. The ophthalmoscopic examination was negative so far as any pathologic changes were concerned. The temporal and masseter muscles of the right side were partially atrophied, the tongue was protruded straight, but when the mouth was opened the lower jaw was drawn to the right showing weakness of the right pterygoids. There was also slight numbness of the fingers and toes

which has gradually disappeared. He never suffered from headache, the urine was at times normal and there were no symptoms of heart or lung disease. Mercurial inunction (1 3 b. i. d.) and iodide of potassium (gr. x. t. i. d.) were prescribed. The former was kept up until there were signs of salivation, and the latter was gradually increased until eighty grains were taken three times a day when, on account of irritability of the stomach, it was discontinued and strychnine (sulph.) was given in ascending doses until the physiologic effects were produced. As there was no change in his condition after four months of treatment and as he had occasion to visit Baltimore he was advised to consult Doctors F. T. Miles and H. M. Thomas whose opinions, with that of Dr. Osler whom Dr. Thomas called in consultation, I shall now read.

(Letter of Dr. Miles.) "I have made a careful examination of Mr. W., whom you kindly referred to me. Besides the complete paralysis of the third nerve (I could not decide about the fourth) I find the fifth implicated. The motor fibers of the fifth are almost completely paralyzed, the temporal muscle and masseter atrophied, and no reaction in the pterygoids. The tongue while it is moved readily from side to side is altered in shape or position on the right side when he protrudes it. I am in doubt if there is not a slight weakening of the seventh. Sensation of parts supplied by the sensitive fibers of the fifth is obviously blunted, but the sensitive fibers are not so decidedly affected as the motor in this nerve. He can observe no difference in strength or sensation on the left side, although I should have expected that there would have been. I think there is a growth within the dura matter which is slowly extending, and after having involved the trunk of the third is invading the fifth. In spite of his specific history I am not inclined to consider it a gumma, but rather am inclined to suspect a tuberculous formation. I have advised him to see you again. I think the most appropriate remedy is (as you suggested) mercurial inunction. This on the chance of its being a gumma. If this does not succeed I think surgical interference would be the best thing. I spoke to Dr. Tiffany and he took the same view, viz: that it was in the range of surgical relief possibly. The operation would be pretty much the one so often successfully undertaken for removal of the Gasserian ganglion of the fifth."

(Letter of Dr. H. M. Thomas.) "At the request of your patient Mr. W., I write you the result of my examination and of the con-

sultation with Dr. Osler. Mr. W's. case seems to us one of very great interest, and of extreme rarity. The condition seems to be a slow degeneration of the nuclei of the III, IV and V nerves of the right side, with slight involvement of the left III, shown by the condition of the pupil in that eye. Syphilis seems the most probable cause. The outlook is grave and we must have in mind the possibility of the condition being an early stage of locomotor ataxia or general paresis. The slight involvement of the bladder points in this direction. As he has taken anti-syphilitic remedies lately, we think it would be wise for him to take strychnia hypodermically for five or six weeks. The nitrate of strychnia is the most satisfactory salt to use. The dose should be given once a day, beginning with a hundredth, rapidly increased to a fortieth of a grain. In connection with this, it might do good to give him arsenic, five minims of Fowler's solution three times a day. After Mr. W. has taken this treatment for six weeks or two months, I believe it would be wise to give him another course of iodide of potassium and mercurial inunctions. I have been extremely interested in this case and would esteem it a favor if you would let me know any new developments."

(Second letter from Dr. Miles.) "I still think the symptoms of Mr. W's. case most probably explained by an intracranial growth. This would also explain the passing trouble of the bladder by pressure on the cerebral peduncle. Besides, there is not only a degeneration of the *motor* nuclei (which we sometimes see) that of the fifth being included, but the *sensitive* fibers of the fifth are also involved, and we know that there is no sensitive nucleus of any nerve within the brain substance. It is certainly a very interesting case, and I shall be very much obliged to you for any future information as to its progress."

As the opinions of these gentlemen coincided in the main as to treatment it was decided to carry out that suggested by Dr. Thomas, but nearly three years have elapsed and no change has taken place in the patient's condition. In the meantime he has continued to attend to his practice of law, has taken part in one or two political campaigns and has been an active member of the South Carolina legislature. The last two undertakings were enough to paralyze any man. Since December, 1896, he has had no regular treatment, attends constantly to business, walks a mile and a half to and from his office, eats and sleeps well and weighs 155 lbs., which is an increase of 5 lbs. over his former weight. Doctors Miles and

Thomas do not agree as to the location of the growth or its character. Nuclear paralysis does not necessarily involve every muscle supplied by the third nerve while a growth pressing upon the trunk may do so, causing total paralysis. When the trunk of the fifth is involved not only are the motor and sensory fibers affected but neuro-paralytic ophthalmia frequently follows on account of the damage to the Gasserian ganglion. The eye generally escapes when the tumor is in the pons. Gowers mentions that semi-convulsive paroxysms of coughing sometimes occur in diseases of the pons which fact may account for the choking, or "gagging spells," from which the patient at one time suffered but from which he has been free for more than two years. Tubercular growths may occur at any age up to seventy, but are more common in early life, three-fourths occurring before the age of twenty, and one-half of all cases before ten years (Gowers.) In adults signs of phthisis are rarely absent when tubercular growths are present in the brain. Syphilitic growths are probably more frequent than reported as they are generally amenable to treatment, but of non-syphilitic growths tubercular and sarcomatous constitute four-fifths of intra-cranial growths. Tubercular growths are found most often in the cerebellum and next in the pons, while syphilomata occur generally in the cerebrum or pons, and rarely in the cerebellum and corpus striatum. Syphilitic growths occur usually in the cranium between the fifth and twelfth years after infection, though they may appear sooner. In this case there is a strong family history of tuberculosis but many important diagnostic symptoms are absent as there are no signs of this disease in any portion of the body. His health has improved, he has gained flesh, eats and sleeps well and has never been obliged to give up his work, but on the contrary, has been subjected to increased mental and physical strain by the political campaigns in which he has taken part and his duties as a member of the State legislature. A tumor that grows rapidly and then becomes stationary is likely to be tubercular, while a very gradual development is not likely to be due to syphilis (Gowers.) In this case the apparently slow development of symptoms does not necessarily exclude syphilis as he was put on specific treatment by Doctors Knapp and Koller, in New York, in 1891 or '92, which may have possibly delayed the progress of the disease.

DISCUSSION.

Dr. J. N. Upshur:

I simply want to express my great interest in Dr. Kollock's paper. It was interesting not simply from the standpoint of the specialist, but especially interesting to the neurologist and interesting to the general practitioner as well. We see a great many cases, where the cause is remote and where it is hard for us to arrive at any well defined conclusion in reference to it. The feature of the case which struck me very much was the fact of the apparent arrest in the disease and that the man was able to continuously perform his daily duties. I should apprehend that sometime there would be a sudden giving way of a blood vessel and the man might die suddenly from apoplexy. Dr. Kollock deserves the thanks of this Society and the profession for putting this case on record which should give rise to a great deal of earnest thought on our part.

Dr. John Dunn:

Dr. Kollock has unfolded the symptoms so well in his case that it leaves nothing to be said. The case has been told in such a complete report that to remark on it except that it is exceedingly interesting, leaves me nothing to say.

President Cobb:

Dr. Kollock, your valuable paper has fully covered the field.

Dr. Kollock:

You will notice that I haven't given a diagnosis. When gentlemen like Drs. Miles, Osler and Thomas differ, I don't think it is necessary for me to say very much as to that. I must admit this case was one which worried me. I was afraid somebody would ask me some questions I couldn't answer. It is a case more for the neurologists to discuss. It has been very interesting, because there is a distinct history of tuberculosis in the family, and as tubercular trouble frequently stops and does not grow after a certain time, and so may the other growth be stopped by treatment. I don't think he is ever going to improve any, but I think he will remain just as he is, for it has been nearly three years now since he had any trouble. I saw him about two weeks ago, and his condition is very much the same except perhaps his general health has improved a little.

Report of a Case of Appendicitis, Complicated With Intestinal Perforation.—Recovery.*

BY GEO. W. LONG, M. D.

MY reason for not attempting a discussion of the diagnosis, pathology and treatment of appendicitis is simply because I know I am not competent to pass upon it. Information gained however, from examining work already done by others that are competent authority, and my own limited experience, lead me to believe that it is possible for a general country surgeon, who is simple and clean in his surgical work and methods, who uses his own common sense and does not try to follow anybody's special method, to add greatly to the conservation of human life. To emphasize this thought, I will briefly give you some of the salient points of a case which recently came under my own observation. The patient was too poor to secure the services of an expert surgeon or to go to a hospital for treatment. Mrs. T. S., aged 19, colored, mother of two children, consulted Dr. George W. Kernodle, September 12th, 1898, complaining of slight fever and soreness over the abdomen, which the Doctor suspected might be the beginning of an attack of Typhoid Fever. Appropriate treatment caused patient to become much more comfortable, but never so much so as to permit her physician to feel that all was well. September 19th, 1898, the Doctor was called to find her aborting. October the 1st, she was moved in a wagon, on a bed, half a mile. October 7th, Doctor Kernodle called me in consultation. She presented a picture, coupled with the previous history, which pointed unmistakably to pus in the right side of the belly. We informed her and her friends that we thought she had Appendicitis and although the outlook was not promising, the thing to do was to open at once, the belly and liberate the pus. Accordingly, with the best aseptic precautions possible, under the circumstances, with our crude environments, under Squibb's Ether, a large quantity of foul pus was liberated by an incision several inches long, in the usual locality. At the time Doctor Kernodle suggested that the pus had a fecal odor. I have to regret that I failed to appreciate his valuable suggestion, as will appear later. Having made several ineffectual attempts to find the

*Read before the Tri-State Medical Society, Charlotte, N. C., January, 18-20, 1899.

appendix, we decided to make a counter opening in the lumbar region, improvise a drainage tube out of soft catheter, irrigate with warm saline solution, and pack with gauze. The patient reacted nicely; ordered light nutritious diet, absolute rest, dorsal decubitus. Doctor Kernodle resided near by and gave her all necessary attention for about a month, watching her general improvement, the posterior wound healing up all right, but the one in the abdomen only partially so. One month from the first operation I was recalled and in this consultation, we had also the valuable services of Doctor J. L. Kernodle. The discharges from the abdominal wound were decidedly fecal and Doctor Kernodle informed me that gas and ingested material had been escaping ever since my last visit. We decided to enlarge the opening and proceeded under ether, as before, commencing just below the border of the ribs, an incision was carried down to and below the McBurney point, opening up probably, a larger field than an expert would have required. We found a large opening in the lower portion of the ascending Colon with very necrotic ragged edges. The perforation in the bowel was so large that Doctor Kernodle easily carried a large sized sponge in his hand well up into the Colon. The appendix was finally found, though with considerable difficulty, ligated about one eighth of an inch from the coecum, with silk worm and cut off. Apparently it was perfectly normal and healthy. A longitudinal section of it, made at once, revealed two very small substances, possibly the size of hemp seed, which we supposed were enteroliths. The ragged edges of the rent in the bowel were trimmed with scissors, sutured with a common cambric needle, armed with silk worm, after Lembert's method—the peritoneal surfaces of the bowel being brought together. A warm saline irrigation, a gauze packing, over this, absorbent cotton, an abdominal bandage, to be changed as indicated, bowels to be bound, absolute rest, opiates if necessary, light nutritious diet, dorsal decubitus, constituted the treatment. The bowels acted by enema one week from the operation and have been moving satisfactorily ever since. The abdominal wound had about healed the latter part of December, which was the last time I saw the case. The cure seems to be all that could be desired. Patient able to walk about the house, though advised to resume customary work gradually. I was not surprised at finding the perforation in the bowel, especially when I recalled Doctor Kernodle's suggestion in the first operation but I was at a loss to know how such a fine

healthy looking appendix could be consistent with an Appendicitis, complicating intestinal perforation. Whether the removal of the appendix was right or not is still to me a *questio vexata*.

Graham, N. C., Jan. 13th, 1899.

Perforating Ulcer of the Duodenum—Operation—Recovery.*

By HUGH M. TAYLOR, M. D.

Professor of Practice of Surgery, University College of Medicine; Surgeon to Virginia Hospital, etc., Richmond, Va.

FORTUNATELY this is a rare disease. We say fortunately because its diagnosis is conceded to be very difficult, and in many instances impossible, and because, as is the case in many acute gastro-enteric lesions, life can only be saved by early surgical intervention.

It was my privilege recently to meet with a case in which not only were the difficulties in making a diagnosis impressed, but equally so was the imperative need of prompt operation illustrated. The intra-abdominal lesion was not, at first, diagnosed as one of duodenal perforation. Per contra, it was supposed to be a case of ruptured appendicial pus collection, with suppurative peritonitis. Prompt operation saved the life of an interesting young woman, otherwise doomed, and as far as our researches enable us to ascertain, permits us to put upon record the second case of perforating duodenal ulcer to recover after operation intervention.

We would not convey the impression, that our interest in this case is centered in the fact, if it be a fact, that this is the second recovery recorded. Our interest should be focussed in the lesson it teaches, that such cases can be saved by prompt surgery. As to the number of recorded recoveries it is due ourselves to state that we have not looked into the subject very exhaustively.

In the Twentieth Century Practice † the statement is made that sixteen cases of perforating duodenal ulcer have been operated upon within the last six years, but no report is made as to the number which recovered.

Greig Smith ‡ in his work on abdominal surgery, says, that at least one success is recorded.

*Read before the Tri-State Medical Society, Charlotte, N. C., Jan. 18-20, 1899.

†Volume VIII, page 473, 1898.

‡Volume II, page 785, 1898.

In the American System of Practical Medicine * by Loomis and Thompson, the statement is made that four cases have been operated upon—one with success.

The medical and surgical literature of perforating duodenal ulcer is strikingly meagre. As far as we have ascertained, its surgical interest seems only to have attracted the attention of Greig Smith. In such works as the American Text-Book of Surgery; Surgery by American Authors, Park; System of Surgery by Treves; Practice of Surgery by Wharton and Curtis; Wyeth's, Moullin's, and others, duodenal ulcer is only mentioned as a frequent complication of extensive burns.

Even a brief resume of all that has been recorded in the works on Practice of Medicine as to the etiology, special and differential diagnosis and medical treatment of duodenal ulcer, would be beyond the limits of this paper, and while in all of its phases it is interesting, we must limit ourselves to its diagnosis and surgical treatment.

It is a matter of common observation that while gastric and duodenal ulcer have much in common, there are notable and inexplicable clinical differences. Duodenal ulcer in the proportion of 16 to 2 occurs in adult men and not infrequently in robust men. It may occur at any age from infancy to senility. Gastric ulcer on the other hand is prone to occur in anemic young women. Let me remark in passing, that I have never been able to reconcile the occurrence of gastric ulcer in young women with the generally accepted theory that it is due to thrombosis or to some type of obliterating arteritis of a terminal artery. Degeneration of the blood vessels is not the rule in the young. No exciting cause for thrombosis commonly co-exists and in vegetative endo carditis, duodenal ulcer does not occur. On the other hand, in support of the theory of obliterating arteritis it is claimed that thrombosis and ulceration have been artificially produced. Whether this circumscribed molecular death is due to thrombus, to an arteritis obliterans, to a neuritis with trophic degeneration or is microbic in origin, must for the present remain an open question, and it is equally impossible to explain, why in some instances duodenal ulcer is attended, with marked local symptoms, and in others with no symptoms at all. Prior to rupture, the symptoms, if any are manifested, are easily and frequently confused with those incident to gastric ulcer, morbid changes about the pylorus, inflammatory conditions about the bile tract and with so-called gastralgia, neuralgia, etc.

*Volume III, page 193. 1898.

Notably by Loomis and Thompson in American System of Practical Medicine, the differentiation between gastric and duodenal ulcer is fully elucidated. It is claimed that duodenal ulcer is more frequent in men and is less frequently attended by hemorrhage or dyspeptic symptoms; that icterus is more common, that pain does not come on for three or four hours after the ingestion of food and what is of special interest to the surgeon that perforation and peritonitis is more frequently met with as a sequence of the duodenal ulcer. These writers fail, however, to differentiate between the symptoms of duodenal ulcer and those incident to bile tract troubles, cancer of pylorus, pancreas, etc., and we think they are much more emphatic in their conclusions than would be expressed by surgical clinicians experienced in diagnosing obscurely defined intra abdominal lesions. Greig Smith emphasizes this point and claims that the disease "is usually as regards symptoms, latent, or produces evidences of its existence so vague and uncertain that diagnosis of duodenal ulcer is rarely made."

As in other intra-abdominal lesions exceptionally classical symptoms may clearly define a typical case. The leading symptoms i. e. vomiting and pain some hours after meals, occasional hemorrhage or malaena and local pains and tenderness are equally common symptoms of so many other morbid conditions. Even in perforation the cases are as a rule atypical with confusing and misleading symptoms.

The case we recently treated illustrates this last conclusion. The patient, a young school girl, aet. about 17 years, while not robust, had always enjoyed fairly good health. About one week before the perforation occurred she began to experience some intra abdominal pain but does not recall that it was focussed in any one special spot or that it was made worse by eating, exercise or anything she did. It was, however, sufficiently severe to prompt her to see her physician several times and she was told by him that he feared it might be incipient inflammation of the appendix. There was no vomiting of either food or blood, no bloody stools. She had rarely in her life suffered from indigestion and this obscure pain had existed only a week. I was requested to see the case in consultation at two o'clock at night. At that time she was profoundly collapsed from a supposed ruptured appendicial pus collection. The evening before she had been on the street, and after eating a hearty supper, walked with some friends six or eight blocks to a depot.

On her way back she walked very rapidly and just as she reached home she was taken with violent pain, etc. I have dwelt upon the history of this case because it sustains the conclusion that duodenal ulcer may exist with minor local symptoms prior to rupture and very confusing symptoms after rupture. Perforation of the duodenum evidently occurred several days before the night of the acute symptoms and a circumscribed pus collection was walled in by adhesion of the transverse colon to the duodenum at the point of perforation. This was subsequently revealed by a large patch of lymph on the duodenum with a corresponding patch on the transverse colon. Perforation and local infection and the formation of a circumscribed abscess evidently occurred while the patient was up and about and this abscess and local peritonitis was not attended with sufficiently severe symptoms to cause either very much suffering or anxiety and certainly they were not such as would foreshadow the impending danger. When this abscess bursts into the peritoneal cavity the symptoms rapidly became extremely acute. The rapid pulse, subnormal temperature, pinched features, vomiting and rigid abdominal muscles presented a clear clinical picture of intra abdominal infection. But there were no guiding symptoms indicative of the source of the infection. The same acute symptoms are common to infection from the appendix, ileus, peptic, typhoid, tubercular perforations, etc. Granting that the pain was above the umbilicus, time and again we have seen the pain of acute ileus or appendicitis focused above the umbilicus, and very recently we saw a case in consultation in which there was no abdominal pain, no muscular rigidity, the abdominal walls could be pressed without pain back to the spinal columns. There was, however, short pleuritic like pain under the right breast. There was a history of appendicitis and a section revealed a gangrenous appendix.

If we recall the distribution of the great sympathetic ganglion to the abdominal viscera, we will be reminded of the fact that pain from almost any part of the intestinal tract, will commonly be referred to a point about or even above the umbilicus in the region of the superior mesenteric plexus.

The great desideratum in this as in many intra-abdominal troubles, does not seem to be an improved operative technique, but rather greater proficiency in diagnosis.

The surgeon's interest in the treatment of duodenal ulcer begins, possibly when by medication and dietetics, the case is found to be

incurable, possibly, when profuse or prolonged hemorrhage endangers life through acute or chronic anemia, and certainly, when perforation and local or general infection occurs. This infection should be classed with that incident to appendicitis, to bullet wounds of the bowel, to typhoid perforation, etc. In each instance we have infection from intestines in which pathological conditions give active pyogenic properties to its ptomain factors. In general peritoneal infection from appendicitis, from perforation in connection with cholangitis of cholecystitis, or gastric or typhoid ulcer and in bullet wounds of the hollow viscera preventive surgery is ideal. The key to success is an early operation to prevent rather than the almost forlorn task of trying to cure diffuse suppurative or septic peritonitis. Perforating duodenal ulcer is as logically within the province of justifiable surgery as any of the morbid conditions above mentioned and certainly if correctly interpreted the symptoms present a clinical picture, clearly noting, from some source, a general peritoneal infection. It is uniformly fatal to wait for the typical manifestations of general infection. Appreciating this truism, Dr. Nuckolls as soon as he saw the patient asked for consultation and advised her removal to the Virginia Hospital. There was a delay of four or five hours incident to removing the patient to the Hospital and in trying to re-act her by means of saline infusion, strychnia, morphine, and the usual remedies called for in profound shock. It was ten o'clock—twelve hours from the beginning of the acute symptoms—when the operation was begun. In that time, general suppurative peritonitis was fully developed. Assisted by Drs. Edward McGuire, Virginus Harrison, and Marvin Nuckolls, the usual section for appendicitis was made. In incising the peritoneum, gas and pus poured out of the general peritoneal sac. The appendix was quickly delivered and much to our surprise, was found not involved in the least. Thinking the focus was in the uterine adnexia, the incision was enlarged downward, and an examination of the pelvis was also negative in its results except to disclose much puddling of sero-purulent fluid. Having eliminated the two most common sites of infection, and as there were no evidences of strangulated ileus, we turned our attention to the bile tract. To expose this site, our incision had to be extended well up to the 9th costal cartilage. This long incision and extensive exposure of the abdominal contents enabled us to note that the intestines—notably the transverse colon—were covered in many places with the com-

monly observed diphtheretic like lymph deposit. There was also more injection of all the structures and the presence of a considerable quantity of greenish looking fluid was also noted. The bile tract when fully exposed was also found intact and not the focus of trouble. Very quickly however, we found the duodenal perforation. It was situated on the anterior surface of the third portion of the duodenum, about midway between its free border and mesenteric attachment, and from it the duodenal contents were freely escaping. The perforation had the characteristic punched out appearance and was not larger than the lumen of a goose quill. For an inch or more around the perforation the duodenal wall was thick, indurated, and inelastic and covered with a layer of yellow grayish lymph.

There was nothing unique in the technique of the operation. The infected lymph was carefully peeled off from around the perforation and an effort was made to invert the ulcer by means of interrupted silk sutures. This was found impracticable, the thick duodenal wall and friable tissue were the difficulty. A purse string buried deep in the thickened wall was made to encircle the perforation and when tied this effectually closed the opening. With silk sutures the ugly looking adjacent peritoneal tissue was brought over the purse string and perforation.

The further technique consisted in carefully wiping away with gauze sponges the lymph deposit wherever found. Next the viscera and abdominal cavity were subjected to prolonged irrigation with hot saline solution and finally the abdomen was riddled with gauze drainage.

Convalescence was slow, a consequence of imperfect drainage and infection of the abdominal incision. For the first three or four days a great deal of bloody serum was drained off, this gradually lessened in quantity and in five or six days the patient was anaesthetised and all the drains except that one which was in contact with the sutured perforation were removed. Puddling of pus was found to have occurred along or behind several of the strips and a discharge of pus from these infected tracts lasted for several weeks. The ultimate outcome was a satisfactory convalescence and the patient when discharged, presented a better condition than is the lot of many who recover from a celiotomy of less serious proportions.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D. ROBERT D. JEWETT, M. D. W. H. WAKEFIELD, M. D.
Editors and Proprietors.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.	R. L. PAYNE, M. D., Norfolk, Va.
J. HOWELL WAY, M. D., Waynesville, N. C.	H. S. LOTT, M. D., Winston, N. C.
J. ALLISON HODGES, M. D., Richmond, Va.	J. W. LONG, M. D., Salisbury, N. C.
S. WESTRY BATTLE, M. D., Asheville, N. C.	H. A. ROYSTER, M. D., Raleigh, N. C.
GEO. G. THOMAS, M. D., Wilmington, N. C.	ALBERT ANDERSON, M. D., Wilson, N. C.
J. P. MONROE, M. D., Davidson, N. C.	

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

AMENDMENT TO THE MEDICAL PRACTICE ACT.

Physicians are usually suspicious of any interference with the laws governing the practice of medicine in the different States, but the present bill before the Legislature of North Carolina will commend itself to the profession at large.

Through the kindness of one of our representatives in the House, and also from Dr. Lewis, of Raleigh, the Chairman of the Committee on Legislation, appointed by the State Medical Society we have before us a copy of the proposed amendment to the present law. For the information of those of our readers who have not seen this bill, entitled S. B., No. 281, we give here an exact copy:

AN ACT TO AMEND CHAPTER THIRTY-FOUR OF THE CODE, AND
CHAPTER ONE HUNDRED AND EIGHTY-ONE OF THE LAWS
OF 1889.

The General Assembly of North Carolina do enact:

SECTION 1. That chapter thirty-four of The Code be amended by inserting after the word "applicants" in line two of section three thousand one hundred and twenty-four, the following words: "who

shall exhibit a diploma, or furnish satisfactory proof of graduation, from a medical college in good standing requiring an attendance of not less than three years and supplying such facilities for clinical instruction as shall meet the approval of the said Board," and by adding immediately after said section three thousand one hundred and twenty-four the following words: "*Provided*, that the requirement of three years' attendance shall not apply to those graduating prior to January first, 1900. *Provided further*, that license or other satisfactory evidence of standing as a legal practitioner in another State shall be accepted in lieu of a diploma and entitle to examination."

SEC. 2. That section three thousand one hundred and twenty-five of The Code be amended by inserting after the word "applicant" in line three, the following words: "who shall comply with the requirements as to graduation prescribed in section three thousand one hundred and twenty-four as amended."

SEC. 3. That section three thousand one hundred and twenty-seven of The Code be amended by adding immediately after said section the following words: "*Provided*, That the said Board may, in its discretion, meet not more than one week before the said society, but always in the same place; and that one additional meeting in each year may be held at some suitable point in the State if deemed advisable."

SEC. 4. That chapter one hundred and eighty-one of the Laws of 1889 be amended by striking out all of section three from the word "words" in line four, down to the word "any" in line nine, the word "likewise" in line eleven and the word "such" in line fourteen; by striking out in section four all from the word "or" in line three to the number "1885" in line six, inclusive, and the words "on oath" in line seven; and by striking out in section seven all after the word "act" in line three.

SEC. 5. That this act shall be in force from and after January first, 1900.

From the above, it will be seen that the changes proposed will be for the betterment of our present law in all respects. The fact that only graduates are entitled to be examined by the State Board, can hardly be objected to by any one, and the additional fact that the bill, if passed, does not go into effect until 1900, will work a hardship upon no one. Other and less important changes will be obvious on reading the Act upon which want of space will not allow comment.

DISSECTION LAW.

Any one who was familiar with public sentiment during the last campaign naturally expected the Legislature to amend the law relating to the distribution of dead bodies for dissecting purposes to the medical schools of the State.

During the early part of the session the whole law was repealed and the judiciary committee now has under consideration the preparation of a bill that is expected to leave out all objectionable features. It is to be earnestly hoped that a suitable bill will be framed and passed by the Legislature. So far as we are informed the only objection urged against the old law was that it made no exceptions in case of the dead at the State Hospitals for the insane. Without discussing the wisdom of including them in the provisions of the original law, it is certainly true that material from other sources can and should be turned over to the medical schools without reasonable objection from any quarter.

Other States have liberal laws of this kind and North Carolina should not be behind them in encouraging this necessary part of a medical education and in fostering home institutions. A law giving our Medical Colleges the unclaimed bodies of State and county convicts and criminals executed, would be a reasonable measure and one that ought to meet the approval of all public-spirited men.

AN ATTACK ON BACTERIOLOGICAL INVESTIGATION.—The *Gazette medicale de Paris* for November 12th recounts that, as it had foreseen, an attempt has been made in the Austrian legislature to suppress bacteriological laboratories, but the Minister of Public Instruction and the chief of the sanitary department have protested against such suppression in the interest of civilization, maintaining that all that is needed is greater care in the management of the laboratories. The attempt to suppress them is quite on a par with English and American antivivisection legislation. We presume the exciting cause of it was the recent unfortunate occurrence of the plague in Vienna as the result of laboratory work.—*New York Medical Journal*.

News and Items.

A Bill for the prevention of the adulteration of food has been introduced in the legislature of this State. We trust some effective measure may be decided upon, and that an amendment controlling the sale of poisons may be adopted.

The January Number of the American Journal of Surgery and Gynecology is truly a "Woman's Number." Its pages are replete with interesting and able papers and editorials all written by women doctors. It is worth reading.

In Germany, the government is establishing sanatoria in all parts of the empire for the treatment of diseases of the lungs.

According to a Correspondent of the Medical Record—A certain medical society in London reserves a number of meetings each year for the reporting of errors in diagnosis and practice.

Among the Recent Deaths reported in the profession are Dr. J. T. Jennings, Bennettsville, S. C., who died Jan'y. 22nd, age 58.; Dr. Thomas Gibson, of Va.

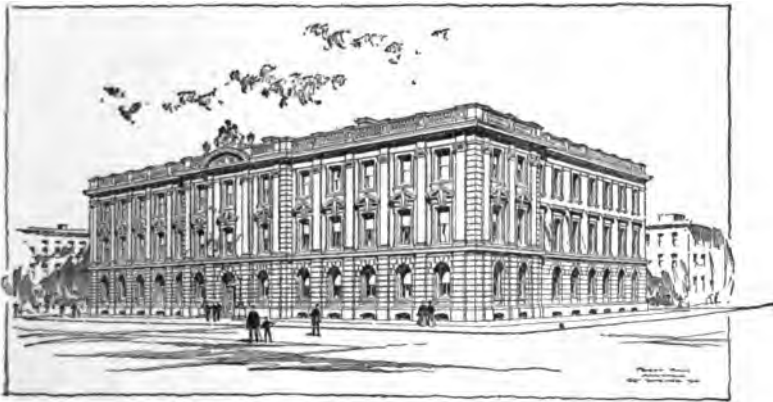
Bear This in Mind.—If you are about to examine a septic case or one where you suspect syphilis, wash your hands in vinegar or dilute acetic acid, and you will soon discover by the smarting any little scratches or abrasions in your skin which might become the starting points of infection.

A Little Trick in Needle Threading.—The following little manipulation is easy of execution, useful, and practical, and will save both temper and nerves, says Dr. J. M. Jackson (*Phila. Med. Jour.*) Let the needle (straight, curved or cervix) be held with the ring and little fingers of the left hand, instead of with the thumb and the forefinger as usual, leaving the latter free to grasp the smallest bit of silk, etc., introduced through the eye, and pull it through. By the old method, when the silk was introduced into the eye and the needle changed from the left hand to the right, it invariably slipped.—*Med. Rev.*

Conservative Treatment of Wounded Hand.—The main point is to cleanse the hand thoroughly, best accomplished with alcohol and ether, followed with copious irrigation with a stream of hot water, at 50 to 55 degrees C., which has the threefold advantage of being hemostatic, aseptic and warming, thus counteracting the cold-

ness that follows the traumatic shock. It may be necessary to use an anesthetic to make the cleansing as perfect as necessary. Once completed, the wound is dressed with iodoform, or simply sterile gauze, and left untouched for four days, with the hand and forearm immobilized. A wound thus treated heals without a trace of suppuration.—Martin: *Jour. des Pract.*, No. 30.

Raleigh Academy of Medicine.—The following officers have been elected for the ensuing year: President, Dr. James McKee; Vice-President, Dr. R. S. McGeachy; Secretary, Dr. H. A. Royster, re-elected; Treasurer, Dr. A. W. Goodwin, re-elected.



New Medical Laboratories at the University of Pennsylvania.

There has been a great deal of agitation in the past about Higher Medical Education, and the theme may seem to have been worn threadbare. With the establishment of the Compulsory Four Years Course of Study the ends of the agitators were for a time achieved, and the Higher Medical Education sought after in the past was attained. More years and longer terms of study, with increased practical instruction, completed and rounded out the medical curriculum. To attain this end an additional year of study was urgently necessary, and new clinical facilities had to be established; in short, provision was required to give the student more ample practical experience than had been possible before.

But the world moves swiftly, and another Higher Medical Education has made its appearance. It is true that with the present provisions the University offers a course of study complete in its details, covering the required branches, and covering them far bet

ter than ever before, but the foundation of the structure is too narrow, the building is too high for the breadth of base, and the equilibrium is uncertain. The needs of the present time are: more thorough training of the student in the fundamental branches, a greater devotion to laboratory work, and a weeding out of much of the old-fashioned didactic teaching. The hand writing is plainly written on the wall: the laboratory in the future shall be the medium of education, and institutions shall be judged by their laboratory equipment. There was a time, unfortunately not so many years ago, when medical schools in this country graduated Doctors of Medicine whose whole teachings had been theoretical, on account of the lack of hospital facilities. In those days the stamp by which a medical school could best be measured was the kind and amount of hospital facilities it offered the student. While the importance of hospital training and bed-side instruction is as great as ever, a change of ground has taken place, and laboratory training has become more and more necessary. It is no longer the crucial question whether a certain school offers its students practical instruction, as well as didactic lectures; the decisive test is rather, whether laboratory training is commensurate with the other forms of teaching. It is impossible to teach Chemistry in didactic lectures, or even by class demonstration. It is equally impossible to teach Anatomy, Pathology, Histology, or Physiology by didactic lectures, or demonstrations to large classes of students. Individual work is as absolutely essential in these branches at the present time as it has been in the case of Chemistry for many years. The scientific physician of to-day recognizes the all-importance of laboratory study of his case, and will naturally send his students to that institution which offers the most thorough preparation in these branches.

It must not be thought that the University has been entirely remiss. The growing necessity of this form of instruction has been recognized and temporary provision has been made. The Physiological Laboratory has for several years been conducted upon the principle that each student should receive individual instruction in practical work, using instruments of precision at least sufficiently to attain some command of this sort of work. In Histology, in Pathology, and in Experimental Therapeutics, the Laboratory facilities have been sufficient up to recent years, while in Bacteriology the ample equipment of the Department of Hygiene has been called in requisition. The continued growth of the classes, however, and the

increasing importance of laboratory instruction, make a departure absolutely imperative, and a new laboratory building will have to be provided in the very near future.

The Alumni will recognize this need, and will undoubtedly endorse its immediate consideration with unanimous vote. The Provost, with characteristic energy, has undertaken the task of securing the means necessary to build and equip new laboratories; and naturally as in the case of the Law School, turns at once to the Alumni of the Department. Every alumnus of the Medical School should be reached, and every loyal alumnus will undoubtedly give some amount to this fund. The cost of the building and equipment will be very great; no less than \$300,000 will be required for the building and preliminary equipments; and it is urgently hoped that a large part of this fund will be secured by contributions from the Alumni. Already the Provost has assurances of liberal contributions from Alumni in Philadelphia, and from others, living in remote sections of the country, whose interest in the Alma Mater has not been diminished by their distance from Philadelphia; and wherever an alumnus may be, the mere mention of this project should be received by him as an urgent appeal.

The accompanying plans will illustrate far better than words the character and scope of the proposed undertaking. The building has three floors, devoted to Physiology, Pharmacology and Pathology respectively. The main part of the laboratory building is 192 feet in length, and there are wings running back at each end 128 feet. Large student-laboratories are placed in the wings, while the front of the main building is divided into a number of special research-rooms, offices, and work-rooms of various sorts. To the rear of the centre of the main building there is on each floor a special demonstration-room, a lecture-room arranged in the form of an amphitheatre. The animal house is a special building two stories high, and situated at the open side of the hollow square formed by the main building and the two wings.

FOR HEMICRANIA.—Robin (*Riforma medica*) recommends :

R	Antipyrine.....	}	each 7½ grains;
	Bromide of Potassium.....		
	Hydrochloride of cocaine.....		1½ grain ;
	Caffeine.....		1½ grain ;
	Powdered <i>Paullinia sorbilis</i>		4½ grains.
M.	For one powder. Take one powder at the end of the first crisis.		

Book Reviews.

The Principles and Practice of Medicine.—Designed for the use of practitioners and students of medicine. By William Osler, M. D., Fellow of the Royal Society; Fellow of the Royal College of Physicians, London; Professor of Medicine in Johns Hopkins University and Physician in Chief to the Johns Hopkins Hospital, Baltimore, etc. Third edition. In one royal octavo volume of eleven hundred and eighty pages. D. Appleton & Company, New York, 1898.

As the author says in his preface, at the present rate of progress in all departments, a text-book six years old needs a thorough revision. We have even heard it said that in these days a medical book ten years old is hardly worth shelf-room. This, of course, was simply an emphatic way of noticing the rapid advance in all branches of medicine. The second edition of Osler's Practice, published three years ago contained many corrections and much new matter, but the present edition has been entirely rewritten. It is printed from new type, the pages are somewhat larger and the quality of the paper better.

Dr. Osler has not changed his views in regard to typhoid fever since the previous edition of his text-book, unless he has become a little more extreme in regard to the avoidance of all drugs in its treatment. He says "a great majority of my cases do not receive a dose." He thinks that the best that can be said of antiseptics is that generally they do no harm. He takes no stock in Thistle's method of eliminative and antiseptic treatment, and considers unnecessary even the preliminary calomel purge, so much used. While there is, to our mind far too much drugging in typhoid fever, and in nearly all diseases, for that matter, we cannot accept the author's extreme views *in toto*. His rate of recoveries, however, is a very forceable argument in his favor.

Dr. Osler is recognized as one of the foremost physicians of the age, and his text-book has met with such a reception at the hands of practitioners and medical colleges as its merits and the author's reputation deserve. The present volume is well in accord with the most recent advances in medicine, and bears throughout evidences of the author's wide experience. While the views of others are not ignored, the work is conspicuously illustrative of the results of the author's personal observation of diseases and their treatment.

The Sexual Instinct.—Its Use and Dangers as affecting Heredity and Morals. Essentials to the welfare of the individual and the future of the race. By James Foster Scott, B. A., M. D., C. M.; late Obstetrician to Columbia Hospital for Women and Lying-In Asylum, Washington, D. C.; late Vice-President of the Medical Association of the District of Columbia, etc., etc. Octavo pages 434; price cloth \$2 00. E. B. Treat & Co., New York, 1898.

The author says in the preface that this book contains much plain talking, and it is true; but it is thoroughly free from indecency and is

an honest effort on the part of the author to so teach the laity in regard to this most important of all their functions that the health and morals of the race will be improved. He seeks to impress upon physicians the duty of instructing the youth of the land in these matters, and not leave them to gain wrong ideas from the conversation of their associates. The subject is a very delicate one to handle in print, but the author has succeeded about as well as could be expected.

A Primer of Psychology and Mental Disease for use in Training Schools for Attendants and Nurses and in Medical Classes.—By C. B. Burr, M. D., Medical Director of Oak Grove Hospital for Nervous and Mental Diseases, Flint, Mich.; formerly Medical Superintendent of the Eastern Michigan Asylum, etc. Second edition, thoroughly revised. The F. A. Davis Company, Philadelphia, 1898.

This little volume of one hundred and sixteen pages is divided in four parts: First, Psychology; second, Insanity; third, Management Cases of Insanity; and fourth, Suggestions as to what to do and what to avoid in Caring for the Insane. The work is intended for the instruction of those who are acting as attendants in institutions for the care of insane persons.

Practical Urinalysis and Urinary Diagnosis.—A Manual for the Use of Physicians, Surgeons and Students. By Charles W. Purdy, M. D., LL. D., (Queen's University); Fellow of the Royal College of Physicians and Surgeons, Kingston; Professor of Clinical Medicine at the Chicago Post-Graduate Medical School. Author of "Bright's Disease and Allied Affections of the Kidneys;" also of "Diabetes: Its Causes, Symptoms and Treatment." Fourth revised edition. With Numerous Illustrations, including Photo-Engravings and Colored Plates. In one Crown Octavo Volume, 365 pages, bound in Extra Cloth, \$2.50 net. The F. A. Davis Co., Publishers, Philadelphia, 1898.

We have before spoken with unstinted praise of this work, which is the best of its kind that has come to our notice. Its great popularity is attested by the fact that three large editions have been exhausted within three years, and that upwards of sixty medical colleges have adopted it as a text-book. In the present volume there have been introduced some improvements, though there was little needed, and the work has been brought up to date. Some less modern and absolute methods have been given less space, or omitted entirely. The work should be in the hands of every practitioner of medicine. The illustrations are good and the mechanical work well executed.

Acute Bronchitis.—

- R. Ammonium chloride, $\mathfrak{z}$ 2.
- Ammonium iodidi, gr. 4.
- Comp. syrup of squill, $\mathfrak{z}$ 6.
- Syrup of wild cherry, q. s. ad $\mathfrak{z}$ 3.
- M. S. Teaspoonful every three hours.

Review of Medical and Surgical Progress.

New Method of Disinfection.—According to the Sanitary Record, a mixture of formaldehyde and glycerin is sprayed into a room to be disinfected, until a thick fog results. For 1,000 cubic feet, about four pounds of the mixture is needed. Three hours exposure was found sufficient to kill all germs in the room experimented on, though the test objects were purposely chosen of the most refractory nature. The advantage of adding glycerin to formaldehyde is due to the hygroscopic character and its power of penetrating and adhering.

The Harris Instrument for Diagnosis of Renal Disease.—Thomas, in the *Medical Sentinel* calls attention to the superiority of this instrument for determining which kidney is affected, and whether there be a second kidney. He briefly describes the instrument as follows: It consists of two curved catheters fastened together, being introduced with the curve up, which, when within the bladder, are turned down, making a complete fork; then a blade is passed into the vagina of a female or rectum of a male, which presses up between the forks making, as it were, a water-shed of the middle of the posterior wall of the bladder, allowing the urine to flow from either side into the two pockets in the bladder thus made, into which each catheter point projects. Then by arrangement of a suction bulb, the urine is drawn into separate bottles as fast as it flows from the kidneys. The time required for getting sufficient urine for diagnosis depends upon the quantity of urine desired and the rapidity of the action of the kidneys. Usually twenty to thirty minutes will suffice, and the examination can be made at any place without special preparation. He has not, so far, found it necessary to use local anesthesia, but it could, if necessary, be used, even with general anesthesia. It is superior to the Kelly method in requiring no anesthesia, in being easy of application, and in requiring no dilatation of the urethra, which sometimes causes paralysis, of the sphincter, with subsequent dribbling of the urine. He recites four cases in which the instrument was used, and in which subsequent operation verified the findings with the instrument.

Modified Inoculation Vs. Vaccination.—At the Nashville meeting of United Confederate Veterans, Dr. C. H. Tebault submitted a

report on the subject of modified inoculation which is reproduced in full in *Gaillard's Medical Journal*. This method for the prevention of smallpox was tested by the author in a very grave emergency during the civil war. An exchange of prisoners had been effected between Generals Beauregard and Halleck. It transpired that the two hundred prisoners received by General Beauregard were, with the exception of six or seven, in all stages of smallpox. One of these prisoners stated to the author that they constituted the remnant of about eight hundred prisoners that had been captured at Pea Ridge, Arkansas, all the others having died of smallpox at Alton, Illinois. These prisoners were placed upon Hatchie Island and Dr. Tebault assigned to care for them. No vaccine was within reach. He recalled the fact that the true Jennerian virus was that derived from the cow while yielding milk, and after the cow had been inoculated with the grease taken from the horse, and he had also noticed that without an exception it was seemingly impossible to successfully inoculate a child fed exclusively upon good, pure cow's milk. He therefore conceived the idea of using the smallpox lymph, diluted with fresh, warm cow's milk as a protective agent in the case of himself and those not already infected. The experiment proved a valuable one, for the dreaded malady was instantly arrested. The few who had escaped the smallpox responded promptly to the modified inoculation running the same regular course observed in vaccination, and presenting all the phases of that well-known operation. The smallpox did not spread to the garrison and was effectually arrested with these exchanged prisoners.

The author concludes his report with the following claims for modified inoculation:

1. Simultaneously with the presence of smallpox, we have offered us the means for arresting the disease in its first appearance by effectually limiting it to the first cases presenting.

2. No doubt could exist with respect to its strength or freshness, for the physician can thus escape the intermediary, and estimate, in his own knowledge, its freshness in exact minutes and hours.

3. Should a father enter his own home attacked by smallpox, every member of his family could be protected through him, and no questioning would be necessary, in employing the virus for modified inoculation taken from himself, for the protection of his own family.

4. Modified inoculation protects more rapidly than the best possible vaccine virus and more certainly, for the author, and every practitioner of medicine of ripe experience and who has seen much of smallpox, knows that smallpox has repeatedly overtaken vaccination two weeks after its successful insertion, and even later, while in the author's experience, modified inoculation has arrested smallpox already in the pustular stage.

5. Modified inoculation would make it unnecessary to provide for compulsory vaccinations, when no physician employing the humanized, or the bovin virus, can vouch, personally, for its freshness or its purity.

6. To-day every physician depends for his virus, upon vaccine farms run for the profit of their owners, and he is compelled to rely upon these propagators and their assistants, residing in distant localities, for the reliability, the honesty and the purity of their products, whereas, in modified inoculation, he can provide his own material, and can calculate from his own information, to a minute, with regard to its freshness, and also in the matter of its purity.

7. Modified inoculation can be made stronger or weaker, to meet any required case or emergency; stronger, for example, in cases prudently needing a second or third protection, if an emergency should suggest repetitions.

8. One or two modified inoculations would answer for a lifetime, whereas, one-third of the re-vaccinated will make a response, if vaccinated with reliable virus every third year.

9. A vaccinated patient will actively respond to modified inoculation in a year, and even a smallpox patient, after recovery, will slightly, or positively, respond to modified inoculation, in the second, and even the first year.

10. To practice modified inoculation, it is simply necessary to obtain the smallpox lymph in the vesicular stage only, and admix the same thoroughly with from three to six drops of fresh, warm cow's milk, and proceed to operate precisely as for vaccination. Modified inoculation, thus practiced, is not communicated by contact or contagion.

Mistakes of the Small Towns.—By Harvey B. Bashore, M. D. Agitation about drinking water has reached the small towns, and almost all are seeking for a new supply to supplant the old well.

Somehow or other people have gotten the idea that spring water, no matter where it comes from, is the thing to be desired, and if the

spring has a source high enough to permit the use of the water by gravity without costly pumping works, it is considered an ideal supply. So a few of the prominent citizens of the town get together, buy land, lay pipes and before long claim to have a pure mountain spring water—the best in the land.

Now the fact is that spring water, because it is spring water, is no better, not even as good, as some other waters; just this day I made a chlorine examination of a sample of Croton water and a sample of spring water from some Pennsylvania hills, and the result was considerably in favor of Croton water. A spring is even no better than a well, except that it is very often situated in an uncultivated upland; if it is in a town or surrounded by dwellings, it is often worse than a well on account of being so readily polluted by surface washings.

Another point worth remembering is that these towns, when they have procured a water supply presumably pure, expect it to look out for itself, and here they make a fatal mistake; for to keep water pure which is in any way near human habitation needs human vigilance. There is a small town near Harrisburg, Pa., which recently tapped a fine spring in the Blue Mountains. Originally it was a pure supply, but the town which uses the water exercises no care over the gathering-grounds, and as a result cows from a neighboring pasture wallow in the spring. Of course, this does not likely breed disease, but it demonstrates at least that this community is not getting as pure water as it imagines.

Then, again, another difficulty arises before long in these towns. Some of the richer citizens think they ought to have water-closets and bathtubs, and soon a plumber is obtained. What to do with the sewage—for sewage it will be—never troubles the householder. He will run it into the sewer, as one once told me, forgetting that there are no sewers, or that sewers must have an outlet; but the wise plumber has been in such places before and helps him out of the difficulty by running the soil pipe into the old privy, and he tells him if the privy gets full he can have it emptied. In the majority of cases it never will get filled, for the simple reason that most of the water will leak into the surrounding soil.

This might not be so bad if only Jones or Smith had water-closets; but other citizens do the same, and following the example of the hardy innovators, turn their privies into cesspools. Now, as time passes, there are cesspools everywhere, and as they all leak, the ground water becomes poisoned.

Water pipes, too, always leak, and whenever the pressure from without becomes greater than that in the pipes—which it must frequently do—filthy soil water passes into the pipes, the town water supply becomes polluted, and eventually typhoid breaks out.

As time passes the town increases in size, while still retaining its primitive sanitary appliances; consequently, we are treated to the sight of towns of six or ten thousand inhabitants using cesspools. Now and then the town becomes a great city, as in the case of Baltimore, which is all but a cesspool city, and we wonder why its typhoid death rate is almost 5 per 10,000.

Sooner or later all cesspool towns will travel the same road—all will end in an epidemic and then the cesspools will give place to sewers, but the damage will have been done, many lives lost and much sickness endured, all because we want to patch mediaeval shiftlessness onto nineteenth century progress.—*Harvey B. Bashore in The Sanitarian.*

Mercenary Antitoxin.—*The Medical News*, in a recent editorial shows up Dr. Behring's true spirit in securing a patent for diphtheria antitoxin, by enumerating the fairly lucrative appointments with which he has been favored, and then goes on to remark:

"To pretend that a man situated like this *needs* to violate all the principles which so far the profession has kept sacred is carrying the plea to too great length. It is plain that it is the money-making side of the question alone that has influenced the medical scientist to depart from a consecrated usage to ask for exclusive rights in the sale of his remedies. Every medical man is bound, then, to oppose as far as he is able, the grasping spirit it implies. Not alone the present issue is at stake but the profession must give a lesson which will impress others who may become inoculated with the commercialism so rife at present. It is quite within the range of possibility that a thoroughgoing inflammatory reaction in the body medical now would produce enough mercenary antitoxin to make its members immune against attacks from this insinuating microbe for some time to come."

Bald Head.—J. Eichhoff finds that captol, a combination of tannin and chloral, has a remarkable effect on seborrhea of the scalp accompanied by pruritus, desquamation and loss of hair. He recommends the following formula: Captol, chloral hydrate, and tartaric acid $\bar{a}\bar{a}$ 1 gm., castor oil .5 gm., spirit of lavender q.s., wine alcohol, 65 per cent., 100 gm. Another effective formula substitutes resorcin for the chloral and adds of salicylic acid .7 gm. Apply a small amount in the palm of the hand once or twice a day, with friction until dry. The effect is more rapid with dry than with oily seborrhea.—*Annales de Derm.*, from *Derm. Zft.*, 1888, p. 25.

Eye, Ear, Nose and Throat Department.

In charge of W. H. WAKEFIELD, M. D., Charlotte, N. C.

What to Do and What Not to Do in Ear Troubles.

Cases suffering from ear affections occur in every physician's practice, and just "what to do or not to do" is often puzzling. A paper by Dr. Hang, (Munich) abstracted in the Journal of Eye, Ear and Throat Disease, January '99, gives a number of excellent points which I will endeavor to present to you in my own words.

Foreign bodies are of frequent occurrence, particularly in children and often some "handy" person has forced the "thing deeper in" in the effort to remove it by means of a hair pin, ear scoop, darning needle, etc.; the child, with a now painful ear is brought to the doctor. Ten chances to one the doctor can't see the object, (unless he uses a headlight) and he proceeds to "explore" for it using a rather large pair of forceps, with the result of forcing the body down to or through the membrana tympana and denuding the canal of much of its epithelium.

In cases of this character what should be done: *never*, or "hardly ever" use the forceps, as any hard, smooth body will surely slip from its grasp and sink deeper into the ear. First try to wash the body out with warm water, using a small tipped syringe and throwing the stream so it will pass the object and wash it out with return current. Failing in this, use a small probe or ear spoon and gently coax it out, under narcosis if the patient will not keep quiet.

Eczema and furuncles of the canal are frequent. The boils should be lanced at the proper time and the canal kept soft and moist by ointment (diachylon oint., oleo cocti, zinc oint. aa.) The salve can be smeared into the canal, or gauze coated with it used as tampon.

Even when nearly well, the tampon should be continued either dry or after painting with

R	Napthal B.	o.i.
	Acid Salicyl	o'5.
	Alcohol	35.
	Glycerine	15.

until the skin is smooth and scales have ceased.

Acute Suppurative Otitis Media.—Use opiates and hot applications to the ears for the relief of the pain. An elegant and inexpensive means of applying heat to the ears is had in the Japanese

"hot box," a small, metallic box covered with velvet, in which pulverized carbon slowly burns. A smoothing iron heated and wrapped in flannel answers a good purpose. If you poultice, first fill the ear with hot water and then apply the poultice and change with sufficient frequency to "keep it hot." Don't, whatever else is done, use Politzer's-bag, or by any other means force air through the eustachian tubes into the middle ear during acute inflammation. If rupture of the drum does not occur and severe symptoms arise incise it. After discharge begins tampon the ears with small strips of dry gauze, when the acute stage passes into the subacute powder treatment may be introduced, blowing it lightly into the ear, not "en masse."

Chronic Pharyngeal Catarrh.—Aristide Malherlee (*Rev. hebdom. de Laryng. d'Otol. et de Rhin.*, No. 40, Oct. 1, 1898, pp. 1185-91) takes up the subject of chronic pharyngeal catarrh as an entity distinct from rhinitis capable of being successfully managed by curetting. He says that in the majority of cases the catarrh comes from more or less marked hypertrophy of the mucous membrane on the site of Luschka's tonsil. The patients have ancestors with manifest signs of adenoids. Nearly all of them breathe badly by the nose. At puberty complete involution of this tonsil does not take place and a catarrhal membrane is left, subject to attacks of acute or subacute inflammation. The tubular glands atrophy, the lymphoid masses proliferate and become hypertrophied, the whole forming a hard cushion with crypts and fissures, emitting a thick, viscous secretion, mucous or muco-purulent, whose presence, like that of a foreign body, invites to hawking efforts, nausea, and tenesmus.

The condition favors involvement of the middle ear. The respiration is of the mouth variety and induces dryness of the throat and mouth, perceived on awakening. Hoarseness and other troubles in phonation are noticed. The examination by posterior rhinoscopy shows mucous or muco-purulent masses.

Douches, powders, sprays, are all inefficient. The author recommends curetting under bromide of ethyl, which must be done more vigorously than in children because the masses are more resisting. Hot boric-acid solution is employed to irrigate the surface after the curetting. After eight days he applies cotton to the curetted surface, steeped in the following solution :

Iodine	1 grn.
Iodide of potass.....	3 grn.
Distilled water.....	40 grn.

This is repeated a few times.

Therapeutic Hints.

Insomnia of Alcoholic Pneumonia.—

- R Codeine, gr. ij.-iv.
Elix. chloralamide, (gr. xx.-3 ss.) 3 ij.
M. S. Tablespoonful to be repeated if necessary every two hours until three doses are taken. —A. A. SMITH, in *Med. Record*.

Vulvo-Vaginitis.—

- R Aluminis,
Acidi carbolic, aa 1.
Aquæ fontis, 100.
M. S. Apply three times a day. —MONTI.

Dry Pleurisy.—

- R Menthol, 0.5.
Cocainæ hydrochl.,
Morphinæ hydrochl, aa 0.1.
Unguent. simpl., 50.
M. S. Apply twice daily. —NEUSSE

Tuberculous Laryngitis.—

- R Carbolic Acid, 1-5 gm.
Lactic acid, 2-15 gm.
Neutral glycerin, 20 gm.
S. First anesthetize affected parts with ten-per-cent. cocaine solution and then apply. —DR. R. BOTRY.

Severe Syphilis.—

- R Iodine, 1.
Potassii iodidi, q. s.
Glycerin, neutral, 5-10.
Acidi citrici, 15.
Syr. simplicis, 1,000.
M. S. 3 i-ix. daily, half-hour before meals. —BOUVERON, *Lyon Medical*, 2, 1898.

Pruritus Scroti.—

- R Hydrar, chlor. corrosiv, 0.05.
Alcohol.
Aquæ chamomill, aa 25.
Chloroformi, 5.
Aquæ laurocerasi, q. s. ad 100.
S. Use as a wash.

Pharyngitis Sicca.—

- R Acid Carbolic, 3 1.
Tinct. Iodine, m 5.
Tinct. opium, m 8.
Listerine, 3 2.
Glycerin, 3 6.
M. S. Spray pharynx 3 times daily.

Treatment of Burns.—The most exquisitely painful burns are assuaged in a few moments by an application of campho-phénique after the following formula:

- R Cocaine hydrochlorate, gr. v.
Campho-phénique, ʒ ss.
Olive oil, ʒ ss.

M. Rub up the cocaine and campho-phénique and add the olive oil.

A man whose hand had been torn and badly burned by an electrical discharge, the pain of which was so severe that he fainted twice before the dressing could be applied, expressed himself as absolutely without pain in less than one minute after the application.—*St. Louis Medical and Surgical Journal*.

Chronic Conjunctivitis.—

- R Acid tannic, gr. 2 to 4.
Sodi biboratis, ʒ i.
Glycerine, ʒ 2.
Aqua, ad q. s. ʒ 4.

M. S. Put 2 or 3 drops in eyes 3 times daily,
or

- R Protargol, grs. 1 to 5.
Aqua pura, ʒ i.

M. S. Put 2 or 3 drops in eyes 3 times daily.

Nitroglycerin in Angina Pectoris.—It is authoritatively stated that the most efficacious form of administering nitroglycerin in angina pectoris is the following:

- Nitroglycerine, gr. iiʒ
Tr. capsici, ʒ ss.
Spts. rectificat, ʒ iiʒ.
Aqua menth. pip. ʒ iiʒ.

M. Sig. Two to ten drops. In one minute the action of the drug is manifest, and in scarcely three minutes the pain is entirely done away with. As the patient grows accustomed to the dose it must be increased, and if this be done carefully there is no great danger to be anticipated.—*Med. Summary*.

The Treatment of Trigeminal Neuralgia.—

- R Phenacetine, }
Antipyrine, } each..... 45 grains;
Quinine sulphate..... 15 "

M. Divide into six powders. One or two to be taken daily.

Treatment of Exophthalmic Goitre.—According to the *Revue Médicale* for December 28th, Kant recommends the following:

- R Sulphate of duboisine, 1-120 grain;
Water, ʒo minims.

M. To be taken twice or three times daily. The author quotes a case in which this treatment continued for three months produced a marked diminution of the phenomena of the disease. The drug, however, occasionally produces somnolence and inebriety.—*New York Medical Journal*.

The Use of Mercurial Ointment Internally in Syphilis.—Silberstein, of Hamburg, considers this treatment much simpler than that by inunction and equally efficacious with the painful injection treatment. He gives the following formula :

- R Mercurial ointment, 22 grs.
 Powdered licorice, 75 grs.
 Glycerin, 5 drops.
 Mucilage of gum arabic, a sufficiency.
- M. Divide into sixty pills. Two to be taken twice daily until all are taken.
 Repeat every two weeks—care must be taken to keep the mouth clean.
 Fatty food may be eaten freely.

Lavage for Anesthesia Nausea.—Dr. I. P. Gundy; (*Medical News*, January 21, 1899,) recommends washing out the stomach as a routine method of relieving the nausea and vomiting that so commonly follows the administration of an anesthetic. He bases his opinion on more than fifty cases in which he has employed the procedure and in which there was almost no nausea.

The operation is done before the patient recovers consciousness, and while the dressings are being applied. It makes the patient much more comfortable and hastens convalescence by permitting food to be taken earlier than would be the case otherwise. He says that he sincerely believes that the time will soon come when the gag and the stomach-tube will be a part of the outfit of the anesthetizer.

Saline Injections in Burns.—When the surface is much burned the circulatory apparatus, becoming choked by the thickening of the blood from loss of serum, may entail the most serious consequences and even death, as in a case Vignier reported years ago : a man fell into boiling water, which caused such a coagulation of the blood that none issued when a vein was opened. Large injections of salt solution dilute the blood to its normal conditions. Besson describes a case of extensive burns in which he injected ten liters of salt solution in five days, with the result that the delirium was arrested at once, the kidneys restored to normal and the patient was soon cured, when the prognosis had been most serious.—*Jour. des Sc. de Med. de Lille*, December 3.

Bright's Disease.—Lemoine recommends the following potion to stimulate the cutaneous perspiration in cases of Bright's disease with uremia imminent : Pilocarpin hydrochlorate, .01 gm.; mucilaginous vehicle, 100 gm. Take three to six tablespoons a day. This amount of pilocarpin is not sufficient to cause any disturbance, and yet it effectively stimulates the functions of the skin.—*Semaine Med.*, December 7.

Reading Notices.

EDW. L. H. BARRY, JR., M. D., Jerseyville, Ill., says: I have used Aletris Cordial with excellent results in the following: Miss R., 19 years of age, brunette, well-developed, but troubled with dysmenorrhea, called at my office, and after explaining her affliction said, "Doctor if there is any thing you can prescribe to relieve my suffering do so, for life is a burden to me now." I thought of the Aletris Cordial at once, and gave her a six ounce bottle, directing her to take a teaspoonful three times a day, commencing four or five days before the regular period. Several weeks afterward she returned with the empty bottle remarking, "I've come back for more of that medicine, for it's the only thing I ever had to give me relief." I can cheerfully recommend Aletris Cordial to the profession.

A PHYSICIAN of the first rank in Boston said recently, "The main difficulty in feeding consumptives is not to find food for them, but to quiet the nerves racked by pain and coughing—to quiet but *not* to depress them. This once accomplished, the forces influencing nutrition revive immediately and only then will nourishment of any kind find its way to the depleted tissues. Angier's Petroleum Emulsion is one of the exceptional few agents upon which I depend for this functional restoring process, and the *only* one in my experience that never caused any unpleasant sensation after swallowing."

I TAKE great pleasure in offering my testimony to the great value of Cactina Pillets, in cases of weak and irregular action of the heart. I have used them for four years and have never been disappointed in them. They not only stimulate the heart, but improve that organ permanently. I find them very useful in all cases of typhoid fever and pneumonia.

Kent, Ind.

C. B. MATTHEWS, M. D.

I HAVE used Peacock's Chionia and find it very effective. I shall continue to prescribe it in my practice.

New York, N. Y.

A. P. DALRYMPLE, M. D.

NOTES FROM A PHYSICIANS DIARY.—La Grippe is again prevalent throughout the land, being epidemic in many sections of the country. The sick list is greatly augmented, much valuable time is lost, and the mortality is directly and indirectly increased by its presence. The disease in its protean manifestations is almost regarded as the scourge of the country, for it leaves in its wake more sorrowing hearts and shattered homes than any disease known in recent years. The medical profession of to-day should realize the importance of early and judicious therapeutics as applied to the treatment of La Grippe. From practical

observation by men of experience in professional circles the following conclusions seems warranted. When a physician has diagnosed his patient's ailment as one of La Grippe, free catharsis should at once be instituted. For the intense headache, coryza, backache and general soreness, the following should be administered:

R Liquid Antipyretic (Tildens), f ʒ iv.

Sig. One teaspoonful every three hours.

After the pyrexia is under control, the sequella of La Grippe, may be permanently removed by the administration of Tablets of Liquid Antipyretic (Tildens) and Quinine ($2\frac{1}{2}$ grs. each) until all grip symptoms disappear. The troublesome cough which is a frequent accompaniment of La Grippe is controlled by the administration of teaspoonful doses of whiskey ad libitum.

UPBRAIDING THE DOCTOR.—Dr. Samuel Wolf, Physician to the Philadelphia Hospital, and Neurologist to the Samaritan Hospital of Philadelphia, presents among others, a case which is of special value at this time. He says: "The entire experience of the writer with antikamnia is not confined to the series of cases on which this paper is based, although its previous use had been limited to a few prescriptions, and those in cases where it was given after the usual routine had been exhausted. It is, however, to a striking result in one of these instances, that the incentive to investigate more fully, is to be largely attributed. A man of 42, in the course of an attack of La Grippe, was enduring extreme torture from the pain of a trigeminal neuralgia. The second ten grain dose of antikamnia gave such complete and permanent relief, that my patient, a druggist of large experience, upbraidingly asked me, 'Why didn't you prescribe this remedy before?'"

TABLET NERVITONE.—Wm. R. Warner & Co. are introducing a new tablet to the profession. The formula comprises active ingredients of a nature well calculated to fill the want of a good nerve tonic. Messrs. Warner & Co.'s preparations are so long favorably known that this new preparation will no doubt receive something more than passing notice. We recall the introduction some three years ago of Tono Sumbul Cordial (Wm. R. Warner & Co.) The rapidity with which it found favor at the hands of the profession is evidence that while a great deal is no doubt due to excellence of the formula, it was largely owing to the fact that all "Warner" preparations have a known therapeutic value and do just what is claimed for them. Messrs. Warner & Co. introducing Tablet Nervitone, write: "When the indications are for a prescription to correct asthenia, neurasthenia or nerve exhaustion, whether the result of debilitating diseases or excesses, we have in Nervitone Tablets a remedy which will give satisfactory results. Being a combination of well known nerve tonics and stimulants. Tablet Nervitone will fill a wide field of usefulness in physicians' prescribing." Many of the so-called tonics contain coca and other substances calculated to produce that distressing condition termed the "drug habit" which necessitates a continuance of the drug or a withdrawal of the remedy at the expense of great suffering. Tablet Nervitone should be given a trial.

Reliable Medical Suggestions

How to Treat a Cough

In an able article under the above heading in the *New York Medical Journal*, Edwin Geer, M. D., Physician in Charge of the City Hospital Dispensary; also Physician in Chief, Outdoor Department, Maryland Maternite Hospital, Baltimore, writes:—

"The object of this brief paper is not to try to teach my colleagues how to treat a cough, but simply to state how I do it, what good results I get, and to call their attention to those lighter affections of the throat and chest the principal symptom of which is an annoying cough, for which alone we are often consulted. The patient may fear an approaching pneumonia, or be anxious because of a bad family history, or the cough may cause loss of sleep and detention from business. What shall we do for these coughs? It has been my custom for some time to treat each of the conditions after this general plan: If constipation is present, which is generally the case, I find that small doses of calomel and soda open the bowels freely, and if they do not, I follow them with a saline purgative; then I give the following:

R Antikamnia and Codeine Tablets, No. xxx.
Sig.: One tablet once every four hours.

"The above tablet contains four grains and three-quarters of antikamnia and a quarter of a grain of sulphate of codeine, and is given for the following reasons: The antikamnia has a marked influence over any febrile action, restores natural activity to the skin, and effectually controls any nervous element which may be in the case. The action of the codeine is equally beneficial, and in some respects enforces the action of its associate. The physiological action of codeine is known to be peculiar, in that it does not arrest secretion in the respiratory or intestinal tracts,

while it has marked power to control inflammation and irritation. It is not to be compared with morphine, which increases the dryness of the throat, thus often aggravating the condition, while its constipating effect is especially undesirable."

The London Lancet's Endorsement

"Antikamnia is well spoken of as an analgesic and antipyretic in the treatment of neuralgia, rheumatism, lagrippe, etc. It is a white powder of a slightly bitter taste and alkaline reaction. It is not disagreeable to take, and may be had either in powder or tablet form, the latter in five-grain size. It is described as not a preventive of, but rather as affording relief to, existent pain. It appears to exert a stimulating rather than a depressing action on the nerve centers and the system generally."

The Prompt Solution of Tablets

We are glad to know that the Antikamnia people take the precaution to state that when prompt effect is desired the Antikamnia Tablets should be crushed. It so frequently happens that certain unfavorable influences of the stomach may prevent the prompt solution of tablets, that this suggestion is well worth heeding. Antikamnia itself is tasteless, and the crushed tablet can be placed on the tongue and washed down with a swallow of water. Proprietors of other tablets would have had better success if they had given more thought to this question of prompt solubility. Antikamnia and its combinations in tablet form are great favorites of ours, not because of their convenience alone, but also because of their therapeutic effects.—*The Journal of Practical Medicine*.

COW'S MILK MODIFIED BY MELLIN'S FOOD

is used successfully in the
DEFICIENT DIGESTION OF INFANCY
DEFECTIVE DIGESTION OF SICKNESS
DIMINISHED DIGESTION OF OLD AGE

"Mellin's Food may be first dissolved in water and the solution used to dilute the milk, or the powder may be added directly to the milk. In either way the milk is rendered more digestible."

Domestic Hygiene of the Child,
PROF. UFFELMANN,
University of Rostock, Germany.

MELLIN'S FOOD FOR INFANTS AND INVALIDS

MELLIN'S FOOD COMPANY, BOSTON, MASS.

When writing, mention the *N. C. Medical Journal*.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIII.

CHARLOTTE, FEBRUARY 20, 1899.

No. 4

Original Communications.

A Running Account of My First Three Years' Surgical Work.

By HUBERT A. ROYSTER, A. B., M. D., Raleigh, N. C.

One of the Visiting Staff, Rex Hospital; Surgeon-in-Charge, St. Agnes Hospital; Formerly House Surgeon, Mercy Hospital, Pittsburg, Pa.

[CONTINUED FROM PAGE 57.]

II. OPERATIONS ON THE LONG BONES. (1.) *Osteomyelitis of Both Humeri*.—Wm. K., age 23, mother died of "bowel consumption" and patient has had pneumonia. Examination shows sinuses leading to necrosed bone in both upper arms, middle third. Openings surrounded by area of redness and discharging thick pus. Incision made over sinuses down to bone; chiselled into medullary cavity, curetted thoroughly, irrigated with very hot water and packed with gauze. Dressed afterwards with iodoform-glycerin and hypophosphites given internally. Left hospital very much improved, but insisted on going out before the wounds had perfectly closed. A few weeks ago he was seen and stated that there was a slight discharge from a small opening in one arm, for the treatment of which he would return.

(2) *Osteomyelitis of Tibia*.—James E., age 12, was kicked on his right leg by a horse three years before. The wound healed, but a year afterward inflammation set in and the leg was operated on by a surgeon elsewhere, who removed some "dead bone." In the lower third of the tibia, a considerable distance below the site of the original wound, was a small ulcer from the bottom of which a sinus passed into the cavity of the bone. The boy was thin, pale and flabby; his leg was painful and useless. A longitudinal incision, four inches in length, was made over the hypertrophied bone, with the sinus as a centre, the sloughing skin-edges retracted and the anterior portion of the tibia chiselled away for this distance. The medullary cavity was cleaned of its gelatinous debris, curetted and packed with iodoform gauze. After many weeks of careful dressing and cod liver oil, the patient went home fat and his leg is now perfectly well.

III. REMOVAL OF BREAST FOR CARCINOMA; RECURRENCE.—S. L., colored woman, age 39, had noticed a tumor at the edge of her right breast for over a year, but it had been growing slowly until the past few weeks. When she first came under observation, it was the size of a lemon and located at the outer and upper border of the breast, projecting slightly into the gland. It was hard, not ulcerated, giving rather the impression of a fibroid, but was tender and the woman had frequent sharp pains in it. No involvement of axillary glands. Tumor was excised first (Feb. 11, 1897,) by a free incision and the wound closed by silk-worm gut sutures. Microscopical examination showed it to be a medulary carcinoma. Recurrence took place after several months and on Dec. 7, 1897, the whole breast was removed along with a good portion of skin, fasciae and muscles of the chest. This seemed to have little effect, for in a short time the growth again returned, this time still further out toward the side of the chest, on a level with the original position. Still, no encroachment on the axilla. The tumor was fixed to the ribs and fasciae, and was beginning to ulcerate. The patient at this point absolutely refused further operative procedures, preferring to die instead of giving herself the additional chances of prolonging life.

Death took place in the summer of 1898. One point may be emphasized, viz., that neither cleaning out the axillary and clavicular regions nor excising both pectoral muscles could have prevented the recurrence of this tumor.

IV. GENITO-URINARY OPERATIONS.—(1) *Circumcision*.—I have done this operation six times. Though comparatively unimportant, pains must be taken in its performance to insure good results. Two points I am always careful to observe: (a) not to remove too much of the prepuce and (b) to keep the cellular tissue between mucous membrane and skin carefully in place with a probe while tying the sutures (Jacobson). Only one of the series need be dwelt upon—a case of *congenital phimosis with adhesions* in an adult. J. M. H., age 21, had had gonorrhœa for three weeks. For several days before he came, he had suffered intensely on account of difficulty in micturition. Examination showed a well-marked phimosis, with a pin-hole opening in prepuce; the head of the penis was small, not pointed, and there was no distinct corona. He stated that the deformity had existed since birth, but gave him no annoyance until he "caught the gonorrhœa." The indication was to give him immediate relief and treat the urethritis. On Aug. 25, 1896, under chloroform anesthesia the prepuce was layed open on a grooved director and the firm adhesions separated an inch and a half back, exposing the meatus. Pieces of skin and mucous membrane cut off. No attempt was made to perform a typical circumcision. Gonorrhœal pus bathed the field of operation. Dressed with acetanilid powder and gauze. While the patient was in bed his gonorrhœa received the attention which it could not have before. Epi-
didymitis complicated the convalescence, but in two weeks he was discharged and told to return after several months to have a careful plastic operation done. The cicatricial contraction, which took place, closed tightly around

the meatus, so that when he again appeared after six months he still passed urine with difficulty through a small opening, which was becoming narrower. Operation, March 26, 1897, ether anesthesia: Two-inch longitudinal incision with sharp tenotome on dorsum of penis through scar down to glans tissue. Dense adhesions. Preputial flaps dissected up with very great difficulty, manufacturing really a glans and a corona glandis. After continuing the dissection backward almost to the base of the penis, the redundant skin was stretched tightly over the head and cut off closely with scissors, then the mucous membrane trimmed and these stitched together wherever possible with interrupted catgut sutures. Bleeding controlled during operation by rubber ligature around penis. Troublesome hemorrhage for six hours after operation. Patient made a good recovery with an excellent result. This operation was extremely tedious and trying, much more so than would appear.

Two operations for (2) *stricture of the male urethra* were included in this record. One of these—an *external perineal urethrotomy without a guide*—was published in the NORTH CAROLINA MEDICAL JOURNAL, April 20, 1897, and is the only one reported in this State, so far as I am aware. The patient is still in perfect health. The other was an *internal urethrotomy*, a rather peculiar case, and may be referred to here. C. H., age 50, had had gonorrhoea several times earlier in life; at the age of 25 had a urethral chancre, which was cauterized by a physician who (the patient says) inserted the solid stick of silver nitrate into the meatus. From this, cicatricial contraction took place and the man had had progressively increasing difficulty in urination ever since. He kept deferring the operation until the stream of urine was very small and it required an hour at times to empty the bladder. His meatus was so contracted that it would not admit any instrument for exploration. Operation, Feb. 6, '98: Parts thoroughly anesthetized with cocaine. Meatus enlarged by incision with bistoury sufficiently to admit a meatatome, the urethrotome being too large. The strictured portion extended 2 inches into the urethra. It was cut throughout its whole extent by the meatatome, drawing it from behind forward in the medium line. At the bulbo-membranous junction another stricture was located. This was not disturbed at that time but yielded later to gradual dilatation. The passage of steel sounds has been continued systematically and the patient is now free from any annoying symptoms.

(3) *Hydrocele*.—Wm. D., age 65, had a large left-sided hydrocele which had been tapped about 15 years before and injected with carbolic acid. After disinfection, trocar was inserted, 8 ounces of fluid evacuated and 3 drachms of Churchill's tincture of iodine introduced.

(4) *Excision of Testicle*.—The right testicle of a colored man was removed in 1896 for tubercular disease. The condition was far advanced, the spermatic cord showing signs of involvement high up and there were two sinuses on the right buttock leading to a probably tubercular hip joint. Section of the cord was made as far up as possible. The patient recovered

from the operation and the parts seemed healthy at the time of dismissal, but he has not been heard from.

V. RECTAL OPERATIONS.—(1) *Hemorrhoids*.—Four operations for "piles" are in the list. The ligature was used in all, this being considered the safest and surest method. Results were perfect in each case. One patient was over sixty years old.

(2) *Fistula in Ano*.—Three cases of fistula were operated upon, each one being cured. One was a woman six months' pregnant. Simple slitting up on a grooved director and packing with gauze was the method employed. All tracts in the surrounding tissues were followed up and curetted. Constant attention in the after-treatment was the rule.

VI. GYNECOLOGICAL OPERATIONS.—(1) *Urethral Caruncle*.—Three patients with this condition presented themselves. The treatment consisted in extirpating the growth with knife or scissors, and the application of pure carbolic acid to the raw surface. In only one did recurrence take place and this has now the appearance of malignancy.

(2) *Vesico-vaginal Fistula*.—One case, Frances G., colored, had been annoyed with dribbling urine for five or six years, coming on after a tedious labor. Two fistulous openings into the bladder were found in the vault of the vagina—one (about the calibre of an ordinary lead pencil) a half-inch anterior to the cervix and the other (somewhat smaller in diameter) about the same distance downward and to the left of the cervix. These were considered too far apart to convert into one foramen. Two operations were performed, the first in April, 1898. At this time the edges of each fistula were denuded separately, bevelling toward the bladder and sutures of silk worm gut introduced and shotted. After-treatment: Absolute rest in bed for two weeks, catheter used every four hours at first, then every six hours for five days. Union of lateral opening perfect; but the fistula on the anterior vaginal wall failed to unite properly. A second operation was done on this, June, 2, 1898, using the same method as before, with the result that the patient was able to urinate voluntarily without leakage on the fourth day and an ideal healing had taken place when the stitches were removed. The woman has been free from her distressing affliction since and feels grateful for her riddance.

(3) *Curettage of the Uterus*.—This operation was performed nine times. In one case the friable cervix of a colored woman was curetted and the tissue (examined by Dr. K. P. Battle, Jr.) found to be malignant. The uterus being free and no vaginal involvement apparent, hysterectomy was advised, but declined, and the patient has since died. There is no simple operation from which better results may be expected, if properly performed, than the curettage of an inflamed and degenerated endometrium. And yet care should be taken in the technique. The aseptic precautions must be as perfect as in an abdominal operation; the curette should be handled lightly and intelligently; and the after-treatment ought to be directed toward improving the patient's general as well as her local condition. I think, as a rule, these

patients are not kept in bed a sufficient time. Two weeks' rest in the horizontal position, with massage, bathing and a nutritious diet, is as necessary for many of them as the curetting itself. It is certainly better to etherize every patient for curettement, unless there is some special contraindication. The rule in my cases was to insert a strip of gauze loosely into the uterine cavity for drainage and also to place pieces of gauze in the vagina. These tampons and the strip were all removed at the end of 48 hours, and weak antiseptic douches administered once or twice daily thereafter. To avoid overdoing these cases, it is well to discontinue all local treatment as quickly as possible and to refrain from catering to the various pains and aches often left behind.

(4) *Trachelorrhaphy*.—The operation of repairing a lacerated cervix was done three times, in all of which the pathological condition imperatively rendered the procedure necessary. The *first* was a case of long standing metrorrhagia with a large hyperplastic cervix. Emmet's operation was done, using silk-worm gut sutures, and a thorough curettage performed at the same time. Result: relief until a year afterwards when a repetition of the curetting was demanded. The *second* case was somewhat more interesting. A colored woman, 29 years old, had, at the age of 15, given birth to an illegitimate child. Six years after she married, but had never become pregnant again, though she and her husband were both anxious for offspring. She complained of the typical symptoms resulting from laceration of the cervix. Physicians she had previously consulted told her that she needed an operation on her womb. There was a cervical tear running up the left side of the uterus at least an inch and a slight laceration on the right. Uterus curetted first and the cervix repaired. Patient went home cured. In two months conception took place and I attended the woman in a normal confinement nine months later. The *third* case was an old laceration, accompanied by eversion and hypertrophy. Cervix repaired by the usual method, with good result.

(5) *Perineorrhaphy*.—Two operations for restoring lacerated perinei were performed during my first three years. They were both complete tears through the sphincter and of many years' standing. Each patient had been treated for "chronic diarrhoea" by numerous physicians with still more numerous drugs. The *first case* (done in September, 1895, the second month of my practice here) was a woman, Mrs. B., 29 years of age, tall and thin, who had suffered for nine years without relief. The V-shaped rectal tear extended 2 inches deep. Mrs. M., the *other case*, was 52 years of age, short and stout, had passed the menopause uneventfully, but was very much distressed by loss of control over the sphincter. The laceration was not so long as in the first. The same technique was used in these cases and both of them were permanently cured, the writer having had occasion to examine them several times since. After freshening the edges of the rectal septum and the ends of the torn muscle, an area was denuded on the vaginal surface as in Hegar's method of repairing the perineum. Rectal sutures of catgut

were first introduced and tied in the bowel. Silk-worm gut sutures were then used to coapt the perineal raw surfaces, going from the highest to the lowest point and being sure in the latter situation to pick up the sphincter-ends with a deep bite. The advantages of catgut as a rectal suture material are obvious.

[TO BE CONCLUDED.]

Pseudo Membranous Enteritis.*

By J. M. FLADGER, M. D., Summerton, S. C.

[[N presenting a paper on the subject selected, I do not claim to give anything new to the profession in regard to the Pathology, diagnosis, or treatment of this disease.

But as it is a rare trouble, perhaps not having been treated by many present—and also as the history of the case to be presented for your consideration differs in so many respects from the usual course of the disease, it is indeed unique.

The definition given in the books is as follows: “A non-febrile affection, consisting in a peculiar and usually *persistent* morbid condition of the mucous membrane, marked by the periodical formation of viscous, shreddy, and tubular exudates, in the discharge of which amelioration of all symptoms occurs.”

We have no accounts of this trouble in the writings of the ancients, and indeed nothing describing it as a distinct trouble until about the eighteenth century, when some writers speak of the tubular exudate, associated with Diarrhœa and Dysentery. It was not until the year 1818 that Powell recognized it as a distinct trouble, and since then it has had a place in Nosology. It is rarely seen in childhood—mostly between the ages of 40 and 50. Females are much more liable to it than males, and the blonde type, light hair and fair complexions—but without consuming your time in giving a general history, I will proceed to give that of my patient. On March 29th, 1895, was called to see Nannie, daughter of Rev. C., a robust and healthy child of five years, dark complexion, black hair and brown eyes. Found her suffering with an acute Gastritis, temperature 102, pulse 115 and respirations about 30. The tongue was coated with a heavy white fur, and the nausea and vomiting were most distressing.

I prescribed Cal. $\frac{1}{10}$ gr., with Sacch Pepsin every hour, warm applications over the epigastrium, etc., with only partial relief of symptoms. On my second visit that day found her extremely prostrated. As the integrity of the stomach was not improved, I commenced to use nutritive enemata, alternating Liquid Peptonoids, with Bovine and milk, and later brandy was added, according to indications. The case went on for a few days with little or no

*Read before the Tri-State Medical Society of the Carolinas and Virginia, held at Charlotte, N. C., January 1899.

improvement in the gastric symptoms, but the coated tongue was succeeded by an intensely red and sleek one, attended with a very *high* temperature and great restlessness. Locally I used mustard, turpentine, poultices, etc., with a final resort to a blister of Spanish flies. I should add that the materia medica was exhausted in the use of remedies internally, and with the assistance at times of two medical men, the relief was only temporary. The thirst was most *intense* and *distressing* throughout the course of the disease.

Her appeals for water, that would be ejected as soon as swallowed, were indeed pathetic. When convinced that she could not retain it, she insisted that her *brothers* and *sisters* should drink it, and even guests at the house were importuned to do likewise. This was about the third week of her illness. There was never any marked tenderness over the abdomen, nor was there any tympanitis, but rather a depressed and sunken appearance of the whole area.

As I lived near, I visited her three or four times a day and watched the case very carefully. The gastric symptoms were so urgent that my mind was not at all prepared for the peculiar sequel about to be described.

About 3 o'clock in the afternoon I was hastily summoned to her bedside to be told that she was sinking rapidly. Every appearance of the patient confirmed that opinion. A cadaverous color of skin, bathed in a cold sweat. No pulse at the wrist, respirations 40 to 50 to the minute, and every symptom pointed to a rapid dissolution.

I remained with her for several hours, and to my surprise about 7 o'clock she began to rally, and under the influence of stimulants she soon regained consciousness. I regret that I did not keep a daily record of symptoms, but soon after this my attention was called to the peculiar character of the discharges. Floating in a thin liquid I noticed shreds of membrane, mucus, etc., which at first made me think of Dysentery, but that was too contradictory to all the symptoms.

Here was a bowel retaining and absorbing all the nourishment she had taken for three weeks, with little or no tormina or tenesmus at stool, so I was compelled to await developments before giving a *positive* diagnosis. The gastric symptoms improved rapidly from this time, but the emaciation was extreme, such as is seen in typhoid about the 4th week. The father was a very intelligent gentleman, and I requested him to examine carefully all the dejecta. From time to time, but not constantly, did these exudates appear, but one morning he showed me a piece of the tubular variety, six inches or more in length.

My diagnosis of Pseudo Membranous Enteritis was then made out. The treatment was supportive internally and astringents locally—first the vegetable, but later nitrate silver 10 grs. to the ounce introduced through a rectal tube 12 inches long.

The digestion was then so much improved that she took readily liquid nourishment in the normal way: these applications of silver were made once a day until symptoms of absorption were noticed in the skin, when they were

discontinued. Under full doses of Iodide Potash the skin cleared rapidly, and I then considered her convalescent. As soon as practicable and on account of the near approach of hot weather, a change to the up-country was suggested. She continued to pass shreds of membrane for about three months, and had a slight attack of indigestion while away—but with this exception her convalescence though slow, was uninterrupted. When she was advanced far enough to begin walking, she lost all power of co-ordination and had to be taught as an infant. I have given a very imperfect history of the case and will recapitulate in so far as to show the variations from the normal course of the disease.

1st. The patient was a child of five years, whereas all reported cases are adults.

2nd. The attack was ushered in with the most alarming symptoms, attended by high febrile excitement.

3rd. The course of the disease was much shorter than usual, most cases assuming a chronic character, and running on for years.

4th. Complete loss of motion and later of co-ordination. I have not seen the case for three years, but from last accounts she had made a complete recovery, developing rapidly, both mentally and physically.

Typhoid Fever, Diagnosis and Treatment.

By ROLFE E. HUGHES, M. D., Laurens, S. C.

Mr. Chairman, Gentlemen, Members of the Tri-State Society:

IF I could consistently think that your patience in listening to me would be rewarded by my impressing you with any very new, valuable or radical suggestions, then indeed with great calmness, I would exultingly treat at length the subject I have before me: that of typhoid fever, its diagnosis and treatment; but I realize, being upon a well beaten path, one that has been ably traveled by many eminent diagnosticians before, and certainly I would shrink from even treading cautiously upon one so hard and worn, but for my enthusiasm inspired by the organization of this Society, and seeing I am accompanied along the route by the most eminent men of three States. Most of the Virginia gentlemen present are personal friends, North Carolina's sons are our entertainers and the Palmetto State, my adopted home, is well represented, so I at least will expect leniency of criticism, and should I lose my way, attribute it rather to a want of time for gathering full directions, and place me on the right route.

It is useless for me to add how honored I feel at being allowed to appear before a medical body of as high character as the Tri-State Society, and be permitted to participate in its scientific deliberations. It is a happy moment for me and I shall ever remember gratefully and pleasantly these distinguished privileges, for aside from the real and scientific part, there is something inspiring and touching, to see a congregation of medical men discussing the ills of mankind and the best possible means of combatting them.

Man is heir to many troubles, our life work is the study of these. 'Tis a serious responsibility and oft times a gloomy undertaking. Our life is spent on the dark side of human existence and misery, in the deepening shadows of which, as some writer has aptly said, "the God-like creations of the poet seem hideous masks," still our duty is always the same, studying nature, vigilantly watching, cheerfully aiding. All through our professional lives, stern realities daily dawn upon us, much of the sentiment, romance and tenderness of our real selves having been sacrificed in our search for truth.

Each day tells us more, the strides are rapid, newer fields are opened up, and now we are told of myriads of bacteria swarming in the air apparently the purest and lurking in so many places we least expected; that our cool, clear mountain spring is a favorite resort and even that the Sacrament Cup and Holy Wine is not exempt. We further know many of our worst diseases are directly traceable to these organisms, each having his preferred mode of attack and selected soil. Probably one of the best known now is the bacillus of Eberth which by drinking water, milk or what not, insidiously steals along the alimentary tract and finding a suitable camping ground at Peyer's patches, flourishes and multiplies to such an extent that he moves his habitat to neighboring tissues, and continuing to trespass, the integrity of the tissues is so upset that we have a patient; usually his age will be between fifteen and forty years, (this is of some diagnostic value) with headache, insomnia, furred tongue, flagging energies, disturbed circulation, anorexia, epistaxis. He thinks he is "bilious;" we too often concur, order mercury and podophylin; patient departs, partakes of hog-sausage, coarse beef, hard boiled eggs, heavy bread, chicken salad, fruit cake and such poisons, when we are summoned again. Our diagnosis should have been made before, but the diagnosis of typhoid fever is not always easy; even in uncomplicated, cases a careful and exhaustive physical examination of patient and investigation of surroundings is always necessary. All are familiar with the array of symptoms so nicely arranged in text-books and few of us are prepared for the serum tests, hence it is an individual study of each case and the intelligence of the practitioner that decides.

For instance, the characteristic temperature record of the so-called step ladder temperature, is in many cases a curiosity. The pulse is not necessarily characteristic and certainly not pathognomonic.

Enlargement of the *spleen is of strong diagnostic value* combined with others. It is usually palpable by the eighth day and if there is not too much tympanites this disappears as fever lessens. Septicæmia, malaria and miliary tuberculosis should here be excluded.

Rose spots are important signs and when present, are typical, but I have never seen them in more than thirty per cent. of the cases; their appearance is usually on the ninth day. Gurgling in right iliac fossa must be looked for but this accompanies many intestinal troubles and all the diarrhœas, yet if accompanied by tenderness and we can exclude appendicitis and pelvic abscesses, then we may expect Typhoid.

The initial chill amounts to very little so far as a diagnosis is concerned, and often as many as six chills may, at varying intervals, occur in unquestionable cases of Typhoid. This is misleading and in my section of South Carolina where Malaria abounds, often is the cause of confusion.

Thus, First—In typhoid we have the initial chill;

Second—Chill at onset of relapse;

Third—Result of antipyretics;

Fourth—At ushering in of complications as pneumonia, pleurisy, acute otitis, suppuration in mesenteric veins, pyaemia, abscess of kidneys, perforation, etc.

Fifth—During convalescence in bad cases, and Sixth—when concurrent malaria exists; this is rare.

To recapitulate; I look for the following, and combined, consider them accurate: malaise, headache, chilliness, pain in back and limbs, tongue pale and indurated (in beginning) margins indentated, *it is put out slowly and retracted indifferently*; there is confusion of ideas and mental torpor. Tinnitus aurum, epistaxis, ascending pyrexia, photophobia, anorexia, rose spots, gurgling and tenderness in right iliac fossa, constipation or diarrhoea, *and lastly vertigo*. This last I regard of great value. Patient on attempting to stand erect, trembles, and the nervous symptoms are pronounced. Then a diagnosis is to be made from cerebro-spinal-meningitis, for many cases of typhoid began as typical meningitis. Fortunately the latter trouble is rare and other symptoms with surroundings, usually settle doubts.

So much for the diagnosis—now how shall it be treated?

Within the last few years over eleven hundred remedies have been tried or suggested for typhoid fever. All sorts and kinds of food have been advocated; hydrotherapy and antipyretics for the temperature; intestinal antiseptics, etc. While special symptoms arising in the natural course of the disease have been experimentally dealt with by almost every resource of the pharmacopea, there are few measures or means at the command of the physician which fulfill our wishes invariably, or even none which in all cases so far promises a specific; therefore he who adopts any one to the exclusion of all other effort, be it in the line of hydrotherapy, antiseptics or what not, fails in his duty to his patient, his profession and himself. It has been said, "The best treatment is a good physician," one knowing the natural course of the disease and able therefore to intelligently anticipate its various complications and phases. Knowing these, how can he have any radical fixed schedule which will be best for all cases and their circumstances? He should be watchful and conservative, using his judgment and adopting such measures as his good sense will in individual cases dictate. It may be Woodbridge or Brand, in whole or in part, or probably a happy medium by the combined antiseptic and hydrotherapy methods; judgment must be exercised in mode or manner of each. Unquestionably hydrotherapy, variously modified, is for its indications the best treatment known, always to be used in hospitals and in private practice when possible. The treatment summarized embraces:

- I. General management and nursing;
- II. Diet;
- III. Treatment of the temperature;
- IV. Antiseptic Medication;
- V. Treatment of special symptoms;
- VI. And the convalescence.

General Management : A typhoid patient should be in a cool, well ventilated apartment, confined to the bed from the onset and remaining until convalescence is well established. The woven wire bed with soft hair mattress is best. A rubber cloth should be under the sheet ; a good nurse in charge and the physician should at each visit, write out specific instructions.

Diet : Foods easiest digested and obviously those leaving behind the smallest amount of residue. Milk heads the list and ordinarily about three pints for an adult in 24 hours. It is often advisable to dilute this with water, lime water or even aeriated waters. It should be given at regular intervals and judgment exercised, for too much leaves masses of curds and thus proves irritating. The usual broths, chicken or mutton come next and many of the beef juices are good.

Water should be given in abundance and pleasantly cool. My experience justifies making this of paramount importance and I wish I could go into the merits. **Treatment of the temperature:** Bathing or sponging and not the use of coal tar antipyretics. Sponging with cool water is the preferred practice with the most successful physicians of my section. Dr. J. P. Simpson, of Laurens, who deservedly enjoys a great reputation and has had extensive experience with typhoid fever, has to my certain knowledge had amazing success especially in the last two years. Dr. Simpson's method of administering the bath is to place a wire cot by bed, upon this lay a piece of oil cloth and cut opening in centre for water to escape into vessel below, weight of patient causing the cloth to dip, thus throwing water to centre; patient stripped, is sponged with water, temperature 70. In some instances it is poured over, always using it in temperatures of 102 ½ or 103 and repeating as necessary to control this temperature; friction is used while administering and to point of bringing glow; when returned to bed cold pack to head.

Antiseptic medication: The efforts to settle upon an agent destructive to the typhoid bacilli or the toxic agent they produce, so far is a failure and we adopt Yeo's plan of the chlorine waters; it has not been satisfactory but certainly does no harm, therefore is a pious fraud. The intentions are good. For my own part, Solol is the remedy when there are no cardiac complications.

Treatment of special symptoms: For tympanites and abdominal pain, turpentine stupes, diarrhoea if severe, starch and laudanum enemas or subgallate of Bismuth ; no opium, even in form of Dover's powders. Constipation if demanding notice is best met by Hunyadi water.

As to hemorrhage and peritonitis, the two grave complications, all are familiar with and I suppose all treat alike.

For the nervousness, hydrotherapy again comes and cold water to head; after the sponging and application of cold water cap, the result is usually so satisfactory as to admit of no strictly medical sedatives.

Brandy and strychnia head the list for progressive heart failure; digitalis is not good.

Convalescence requires even as much care and watching as the acute and active stage of the disease. Over eating and too much exercise are usually the causes of relapse. The other minor details fall in line too naturally to tax your patience here, so I relieve you.

Laurens, S. C., January 17, 1899.

Lithæmia.*

By JOHN N. UPSHUR, M. D., Richmond, Va.,
Professor of the Practice of Medicine, in the Medical College of Virginia.

 CLINICAL observation, and personal experience for several years have impressed upon me the importance of this subject. Gout, when frankly declared in a joint, is very easy of diagnosis, and clear in its therapy, but when the subject of the gouty diathesis rarely or never has a joint involved, and the lithæmic manifestations, indicative of excess of uric acid in the system, declared by phenomena in skin, mucous membrane, viscera, ears or eyes, the diagnosis becomes more complicated, and consequently the indications for treatment more vague and embarrassed. A factor in the manifestation of the phenomena above indicated is age. We find that when the subject has attained middle life, when all nutritive processes have reached their climax, especially if there be heredity as a predisposing cause, mental strain, worry and anxiety, I am confident, both as the result of my personal experience, as well as clinical observation, that some subjects have combined two heredities, tubercular and gouty. The first shows itself in early life, some tubercular joint affection, or incipient tuberculosis of the lungs, overcome by an improved environment, the substitution of hyper-nutrition for a condition of malnutrition, and the gouty diathesis over-rides and stamps out the tubercular. We find in the subject increase in weight, digestive and assimilative power, improved energy and greater capacity for work. We are surprised to see the prognosis of early demise, changed radically to a state in which the subject has a first class chance of living out his expectancy. I would not be understood to take position as a skeptic as to the causative and infectious nature of the tubercle bacillus, but I ask you to ponder the question of the anti-germinal, yes, fatal effect upon the tubercular germs of excess of uric acid in the system, finding as it does elimination from the body by every emunctory channel, and mucous surface.

Of the active causes of lithæmic manifestations, various articles of diet must bear the onus, and this causation varies with different subjects, mani-

* Read before the Tri-State Medical Society of the Carolinas and Virginia, at Charlotte, N. C., January 18-20, 1899.

festing itself in various ways, the general proposition that sweets and acids, wines and malt liquors, excess of various kinds of nitrogenous foods, all make themselves known in symptoms ranging from simple discomfort to agonizing pain. Strawberries, an orange, a raw tomato, or even a little tomato in soup, declaring its effects by a violent erythema on the hands, or feet, or face, itching of the nose, or a furious and tormenting urticaria within a few hours after digestion, sometimes only recognized by a sense of tension or swelling in the fingers, a burning sensation in the toes or the sense of the shoe being too tight. At other times we find the effete material seeking elimination from the system by the skin, and a furious and intractable eczema, moist and acute, in its manifestations. I treated a lady for an obstinate attack of gout in left foot and ankle. The same time the next year she developed an obstinate attack of acute (moist) eczema in her left arm, resistant to treatment both local and general, a full dose of pilocarpine at night resulted in the most profound exacerbation of the eczema next day, so that she was unable to grasp anything with that hand, and arm so swollen that it was tense and hard and very painful, and the itching beyond endurance. Great comfort was given by the application of a strong solution of bicarbonate of soda in cherry laurel water, swelling subsiding and itching and pain relieved, and arm almost completely well in forty-eight hours. I believe this eczema was lithæmic, and the pilocarpine temporarily aggravated the condition by a largely increased amount of uric acid elimination. Persistent and distressing itching of the nose will sometimes be the only indication of lithæmia. The digestive tract is a frequent seat of uric acid eliminative irritation. Some of the cases of acid dyspepsia that come under observation are clearly traceable to elimination of uric acid, and not responsive to ordinary remedies. The burning is more intense, there is a sense of *glow* in the stomach, alternating at times with nausea, and accompanied by areas of itching, flying about from scalp to nose or face, upper and lower extremities. The subject will sometimes awake in the morning with a nasty, pasty taste in the mouth, urgent desire to go to stool, and will have frequent copious and very acid actions, amounting to fifteen or twenty in the following twenty-four hours, scalding, burning, and very exhausting, with a sense of faintness or goneness. At the same time the urine is scalding, scanty, high colored, and very acid. The condition seems to relieve itself, the bowels becoming quiet so soon as eliminative action is complete. Or the manifestation may be in the form of acute pain in the bowels, most commonly located in the colon, sigmoid flexure, pylorus, or some part of the colon tract, coming on with a sense of depression. Sometimes agonizing cardialgia succeeded by nausea, the pain then becoming fixed in one of the points, the caecum is its most common location, some cases simulating very closely appendicitis. The pain is burning, rendering in its character, with a sense of unendurance. It must be felt to be appreciated. The writer has had four attacks of this nature, two being in the caecum, one in sigmoid, and one in the pylorus. It felt as though a mass of hot live colds had been put at the spot, reinforced by a free dose of mustard.

After the agony of the early part of the attack has been controlled, the sense of soreness extending over the whole abdomen, is so great as to make the even act of changing one's position in bed intensely painful. On one occasion, for a week after the attack there was the sensation as though a knife was run into the abdomen, when any jolt came, the rolling of the carriage over the street crossing was almost insupportable. In conjunction with the last and most severe attack located in the caecum, a retino-choroiditis developed in the left eye, making itself felt first by a sensation as if a grain of sand was in the eye, followed by pain and soreness in the ball, and loss of sight up to the point of being unable to recognize any object other than light. The eye was completely restored in ten days after taking a mixture of strychnine, dil., muriatic acid, and pepsin. I tried the experiment of a bottle of beer on going to bed at night, awoke next morning with nasty taste in my mouth, crawling, itching sensation of skin on various parts of the body, and painful ringing in the ears. This ringing in the ears is one of the most common manifestations of lithæmia, with or without headach. This latter is dull, persistent, with more or less confusion of ideas, though Haig says its duration is under twenty-four hours. I fully agree as to the other characteristics of it which he describes. My experience of blurred or indistinct vision in connection with these headaches has been similar to his. Nor is this all, interference with normal metabolism, is a not infrequent cause of lithæmic manifestations; anything causing over nervous strain, business cares or worries, anxiety about a patient, over work, reacting on the stomach through its nervous supply, interfering primarily with digestion and subsequently with metabolism, will be productive of as well defined evidence of lithæmia as any other one thing. Very commonly associated will be a torpid liver. This organ has failed to dispose of the effete material that should be burnt off. Uric acid accumulates in it, the blood becomes too acid and the undefinable lithæmic symptoms show themselves. Nor will ordinary alkaline remedies bring relief, until the liver and portal circulation have been unloaded by a sufficient dose of calomel, and thus with these conditions described, is it strange we see gouty kidney, atheromatous degenerations of the blood vessels, the development of mental depression, or organic degenerative change in the brain.

Time does not allow me to go into a more detailed discussion of this subject. You will find it all elaborately treated with the hand of a master by Haig in his work "Uric Acid in the Causation of Disease." But in justice to myself I must say, my own clinical observation and personal experience had pointed out to me these clinical facts which I have so imperfectly detailed.

Whether these symptoms are due to excess of uric acid in the system, or whether, as Haig claims, this excess is relative from an interference with the balance, I cannot say. He says a certain amount of uric acid is taken in daily with our food, a certain amount generated in the system; that, if the balance is interfered with and not so much excreted as has been accumulated in the organism, the blood becomes acid, fails to be a solvent and thus

uric acid is left in the tissues joints or deposited in the liver, spleen or kidneys. Just so soon as the blood becomes alkalinized by soda phosphate or the salicylates, it becomes a solvent for the uric acid, it is taken up and excreted from the system. I can testify to the efficiency of soda phosphate and the salicylates, though the latter are apt to disagree with the stomach. Haig says "And lithia * * * though said to be a beautiful solvent of uric acid in the test tube, yet when given to the human subject by the mouth never reaches the uric acid at all, because it forms at once an insoluble compound with the phosphate of soda in the blood, thus removing from that fluid one of the natural solvents of uric acid, and diminishing its power of holding uric acid in solution." This, if it be true, is a terrible blow to all of the varied lithia waters that have been so much vaunted as remedial in every variety of lithæmia or gout, so far as the lithia salt held in solution is concerned. That water, freely drunk, does much good in the process of elimination, there can be no doubt, but it is because as a solvent it takes out of the system effete matters. Beale says "Water freely drunk, goes into the cracks and crannies of the system and washes out the cobwebs."

In conclusion, the treatment of lithæmia consists chiefly in dietetic regulation and this must depend on each individual case. The value of sodium phosphate, I have already alluded to. The saline cathartics, in full blooded subjects, the purgative waters, especially the Rubinat Condol, the bitter tonics, especially, *nux vomica*, and the infusion of cinchona. *Strychnia* is valuable because it not only improves nervous conditions and digestive processes, but is also eliminative, by its quickening the performance of function in the emunctories. It causes marked rise in urinary acidity, and cures headache (Haig). Exercise is of great importance, walking, horseback, or bicycle. I am inclined to the opinion that the administration of the salicylates should be preceded by a course of pure alkali as potass, bicarb, until the urine is neutral and because it makes the salicylates more efficient and diminishes the danger of a subsequent endocarditis, and valvular damage.

In articles of diet, I would especially mention as useful free use of milk. Taken hot it improves digestion, acts as a stimulant to nutritive processes, and predisposes to alkalinity of the blood. Tea, I regard as more harmful than coffee. Its tannin constituent tends to gastric derangement, and thus secondarily interferes with metabolism. Coffee has a tendency to the kidneys, and is, in some measure, eliminative. I would condemn especially, wines, malt liquors, &c., believing that whiskey is least harmful, but even it should not be taken unless there is some factor of debility general or digestive, which demands it, and even then it should be in very small quantity.

Time does not admit that I should go more fully into the discussion of this subject, but if what I have said has excited your interest and given you food for thought, I am amply repaid.

210 W. Grace St.

DISCUSSION.

Dr. Geo. W. Long.—I desire to remark that I have been very much interested in Dr. Upshur's valuable paper and while I do not know that I can add anything of value, I will observe that the manifestations of lithæmia are difficult oftentimes to enumerate. We are told that as the alkalimty of the blood is decreased we may expect uric acid accumulation about the joints, viscera, etc., and that this feature is due more to its defective elimination than to excessive formation. Patients of full habit who lead sedentary lives, are more likely to suffer, in my opinion and my experience leads me to believe that satisfactory results may often be obtained by advising exercise in the open air, and cutting down the nitrogenous foods, i. e., meats, partially or wholly and the free use of alkalies. I do not know, as stated by Dr. Upshur, that milk predisposes to alkalimty of the blood and would be glad to hear from some one else.

Dr. Hunter McGuire.—I ought to be in a position to say something on this subject, for until not long ago I was disabled, and until very recently I didn't know anything about pathology. I don't believe to-day we know any better how to explain the action of uric acid than we did a hundred years ago. I am indebted to the book the writer referred to, Haig, for most valuable information on the subject that I never understood until I got hold of that book. I think I do understand it now. I never began to get well until I followed the suggestions made by this writer. No one ever tried harder to get rid of anything than I did to get rid of this trouble. No one ever took physic more greedily than I did trying to get well, but the suggestions that this man makes, as soon as I adopted them I began to get better, until to-day, so far as I know, I am free from gout and can do as much work as I ever did. And his suggestion is very simple. Give up all meat, every variety of meat. I haven't touched meat for many, many months. Give up all coffee, tea, cocoa, because they contain uric acid. Drink milk. Give up eggs because they contain too much nitrogen. Drink milk, eat every variety of vegetable and fruit that you can get hold of. Don't hesitate to eat tomatoes; I eat them whenever I can get hold of them. I don't hesitate to eat an orange. I don't hesitate to drink whiskey when I want it, but fortunately I don't want it very often. Now, that is briefly the way I have recovered my health and gotten rid of this gout. I will suggest another thing, that the nervous system has a little more to do with it than we are disposed to admit. Although I had gout so badly and it lasted so long, attacking my eyes and making me blind for a little while, preventing my reading for weeks and weeks, although I have had it in both feet at the same time, and my knees were all swollen and deformed, suffering horribly, I haven't got on my fingers or toes a trace of it, I haven't got a trace of uric acid. And my gout usually came when I was run down, when I had too many sick people, when I had what every one of you have had, patients who gave me too much anxiety. Cases incurable I never troubled my mind much about after I concluded that nothing could be done, but in cases which could be helped, and a number of them, some-

times eight, ten or a dozen people who would die if I made a mistake, constant anxiety in those cases gave me gout. I never drank wine or beer or anything of the sort, never cared for them in my life, have always been a small eater, always glad to be able to take a small drink of whiskey, and I congratulate myself that I am able to do it now and it does not hurt me. I don't know about strawberries. I don't believe I earned the gout by high living. If I had I would have lost it, for I have lost everything else that I have earned. It must have been inherited. If it was it was the only thing I inherited that I held on to. I only speak about it because I have had so much personal experience. We might well look and see how much the nervous system has to do in this trouble. It has something more to do with it I think, than we are usually disposed to admit.

Dr. Paul Barringer.—There is one physical characteristic of gout that has been referred to that is so simple and has probably occurred to most of you, that I hesitate to refer to it, and yet in a purely accidental manner my attention was called to it. I refer to what the Doctor referred to as the finger and toe deposits. He will probably agree with me that the ear is frequently a source of deposit also. I wondered why the foot and the fingers and the ear should be the sources of deposit of uric acid salts. A few years ago a friend came to me and said that he had a hot water heater that wouldn't heat, that it was too small, he could get it up to 212 and it wouldn't heat any hotter. In a joking manner I said, "Saturate your water with salt and I think you can raise it to about 240." He did so and had very satisfactory results for three or four days. He came to me in very great distress and said, "My machine won't run." I investigated it and found his radiator solidly packed with sodium chloride and the water pure. When we consider that sodium chloride and other salts of uric acid enter the blood current at a temperature of 101 or 101½ or some point about that, we can readily understand that when the same blood enters the fingers and finger tips, cooling as it flows to 97 or 96, and so on down; or when flowing through your feet as you stand on a cold pavement, it becomes cooled to even 90, this fall in temperature permits a deposit of uric acid in the minute arteries of the parts. Those of you who on a cold frosty morning have felt the clip of a passing breeze, know the hypersensitiveness of the ear, and know how it is brought about by the negative circulation. I feel sure that it is the cause of the deposit of the uric acid salt in the fingers and toes. With regard to the joints, I have given the matter some thought, and I think that it is due to the fact that the circulation is purely superficial, and that there are in the joints no centers of heat production as is to be found in the muscles, that we have the surface of the joints cooler than the remaining parts of the limbs, and this deposit of uric acid salt around the joints is due to the same cause as that the uric acid entering the blood at 101 will deposit that uric acid at whatever point the circulating fluid passes below that temperature.

Dr. Upshur.—I would like to say a few words in conclusion and beg the indulgence of the Society for trespassing upon their time. I want to say

a word first with regard to the point the Doctor made as to milk as it is a nitrogenous food. I want to premise what I am going to state by saying that one of the things I have always had a horror of all my life was chemistry. It would have been better for me if I had not had this horror of chemistry. I don't ever attempt to look deeply into any chemical discussions or reason about those things brought about by chemical processes. My views with regard to milk not doing as other nitrogenous foods would do are based on two facts. The first is the fact of personal experience which after all is the best teacher. For many years, the last ten or fifteen years, I have at times suffered acutely with these unusual and irregular attacks of gout. Naturally they set me to thinking. Naturally this question of diet was a subject uppermost in my mind as a solution of this question, both because I believed that the legitimate solution of the problem lay in the direction of the diet, and secondly because I believe most profoundly in the Scripture injunction with regard to medicine, that it is more blessed to give than to receive, and therefore whenever you hear of my taking a dose of medicine you may know that I am in a corner and can't crawl out, so my gouty trouble was treated along the line of diet. Now, my experience with regard to milk, and I drink a great deal of milk, proves that it is the very best thing I can do in the diet line for my gout and I was at a loss to know why it was so until I came across this wonderful book of Dr. Haig's. I haven't read it all yet. It is very much like fruit cake, you must take a little bit of it at a time if you want to digest it thoroughly. I say this because it is so comprehensive and a man wants to ponder well what he says and digest it thoroughly, because he will constantly come back to it as a rich storehouse and find something exceedingly useful to him. I find that Dr. Haig lays down as a proposition certainly that milk promotes the alkalinity of the blood, this is the explanation of milk for this condition of things when I couldn't explain it before, and that is the reason why milk will do this as a nitrogenous food when other articles of food like a meat diet will not do it, especially the dark meats promote the development of uric acid in the system when milk does not because of the fact that it alkalizes the blood and at the same time tends to promote elimination through the kidneys. Now, there is another fact that is exceedingly interesting to me which Dr. Haig lays down, that in every system in the morning a cleansing should take place, that it is a time as it were of cleaning up the house. The urine is highly colored and there is a great amount of uric acid in the system. "The alkaline tide sets." The whole organism should get ready for the battle of the day. Then the question with regard to other articles of diet. The experience which Dr. McGuire gives with reference to tomatoes and oranges, which I touch *very cautiously*, shows that it is undoubtedly true that what is one man's food is another man's poison. Strawberries are absolute poison to me, and I have seen over and over again cases where they produced gout or brought it back after it had been seemingly cured. I assure you I would as soon touch poison as one of them. I have had little tingling,

gouty sensations in my fingers within an hour after eating an orange or tomatoe, or some acid vegetable or fruit. Now, I will go a point further, and this is a point in which I have to disagree with Dr. Haig. Relief doesn't always come in the line of a vegetable diet. There are conditions of the stomach which we might call vegetable dyspepsia with indigestion. You take the first step in the direction of lithemia and when you do that you at least negatively establish the fact that there is a retention of uric acid in the system, and interfere with its elimination and you may have well declared gout as a result of that condition. Now, there is no question of the fact, but that strain on the nervous system is a factor in its existence and in its potency, for the gout—not the gout that the Englishman has where he has his toes all swollen up and uncomfortable as a result of his high living—but where you have it in these forms and ill defined symptoms of lithemia. I like the term lithemia better than that of gout, and there is a distinction. Lithemia is American, gout is English, as a result of high living. Lithemia comes to the Americans from the tense condition of the nervous system. It is the old story of tuning the lute up to the point where there comes a rift, and the music is all mute. Many a man has died suddenly as a result of apoplexy or of organic heart trouble, and the trouble has been atheroma in the blood vessels of the brain or in some organic change, it may be simply the deposit of uric acid salt upon the valves of the heart, and primarily the cause of that man's death has been his lithemic condition. I believe there is nothing we should guard so carefully against as this nervous strain. Now, a curious fact, personally while I have had rarely or never any of the joints involved, I have scarcely got a joint in either hand that I haven't got the marks of lithemia, and in the ball of that thumb I have got a little globular mass that rolls around it like a marble when I press on it, and yet I have never had an attack of gout in my feet in my life. With regard to eggs, I would say it is true with these as with other articles of diet. Eggs have the reputation of being very digestible, but in my experience I have found them very indigestible. I constantly find patients who can't take eggs, they disagree with them and are a source of trouble. Finally, one word with regard to colchicum. No one here will deny its useful properties, because it exercises some elimination but I very rarely give colchicum to a patient. It is a thing that is apt to upset the digestion. Usually colchicum is objectionable to the stomach and I very much prefer to find a solution through other therapeutic lines, and the crystalized phosphate of sodium is peculiarly happy in its influence for the relief of these conditions.

Uricacidaemia as the Cause of Hay Fever and Asthma.*

By DR. JOHN DUNN, Richmond, Va.

REPEATED failures through several years to cure hay fever by treatment applied directly to the nose membranes, even when these were the seat of hypertrophies, polypi, etc., led me finally to tell patients suffering with this trouble that while their discomfort could be lessened by removal of the diseased conditions present in the nose, this local treatment would have no effect in preventing a recurrence of the hay fever. The pollen hypothesis had seemingly so many points in its favor that I was unwilling to admit that "hay fever" could be purely symptomatic of a more or less definite condition of the blood.

Bishop's book and papers first turned my attention to the connection between hay fever and uric acid. Haig's work on uric acid made a clearer understanding of this connection possible.

The following case was the first to lead me to examine more carefully than ever before into the possible causative relationship between uricacidaemia and both hay fever and hay asthma.

Mr. A., aged 46, consulted me in the winter of 1897 in regard to his nose. "Doctor, I want you to burn my nose. It is the only way in which I can get relief." This was the patient's introduction of himself to me. I asked him what was the matter with his nose. He told me it was "tight as a drum and pained him," "that he could get no air through it," could not get his breath. He was constantly blowing his nose and was evidently suffering considerable discomfort. "Why do you want it burnt?" I asked. "Because I get more relief in that way than in any other. In the past few years I have suffered almost constantly with my nose, which I have had burnt twenty or twenty-five times, and I have had something sawed out of it, but it has grown up again. I have a catarrh powder, which relieves me for a few minutes at a time." Examination of the nose revealed the turbinated membranes as swollen and tense as numerous old scars caused by the electro-cautery would permit them to be. There existed, however, some free air space in the nose through which he could "not get a breath of air." This fact, that there existed free air space in a nose which gave the sensation of being entirely closed, is one I have frequently noticed especially during asthmatic attacks. I declined to burn these membranes. I then inquired into the diet of Mr. A., who weighed 250 pounds, and found that it consisted almost exclusively of meat and quantities of beer. Regulation of the diet with administration of alkalies afforded entire relief from the distressing nose symptoms without any treatment of any kind being applied to the nose membranes, which on the old hypothesis that the source of the disease lay in these swollen turbinates would have required extensive reduction, either through the aid of acids or the cautery. Three weeks ago Mr. A. reported that his nose still remained comfortable. The results obtained in the case of perennial hay

fever were duplicated in the case of Mrs. F., aged 35, who for years had suffered from hay fever, whose manifestations as a rule were severest in the late spring months. Attention to her diet relieved the hay fever within a few days and far more completely than any intra-nasal treatment to which she had subjected herself. A letter from her husband received Oct. last, states that the relief obtained has been permanent. It must be understood that both Mrs. F. and Mr. A. have continued to follow the advice given them in regard to diet, etc.

When the regular hay fever season came in August, the influence of diet in the causation of hay fever and hay asthma was clearly demonstrated in several cases, some of which I shall here mention briefly.

The first case was that of Miss L., aged 16 who for several years had suffered severely from autumnal hay fever, which this year had been accompanied by asthmatic attacks of such severity that the greater part of the night before she was brought to my office she had spent gasping for breath. Examination of her nose revealed a typical hay fever condition, of the membranes, which were swollen, *pale*, and the seat of profuse clear secretion. In places the turbinates touched the septum. Posteriorly, the middle turbinate on the left side at its end formed a huge whitish oedematous swelling, polypoid in appearance, which was jammed so tightly against the septum that a snare wire could not be forced between them. There was a general oedematous and puffed condition of all the portions of the turbinates visible by posterior rhinoscopy. The young lady's eyes were red and watery. In short, there were present all the conditions, which those who believe in the mechanical origin of hay fever would rejoice to find, hoping by their removal to cure the disease. I next asked Miss L. what she had eaten for breakfast that morning. "Ham and bread" was her reply. And for supper last evening? "Ham and bread." "Were you helped to ham more than once?" "I suppose I was, as I am very fond of it." "What did you eat for dinner?" "Ham and bread again. I cannot touch any vegetables but corn and sweet potatoes, and I do not care for any meats except ham and veal." She drank tea and coffee sparingly. Such a diet as the above for a girl of sixteen who spent the greater part of her summer days idling about the house and reading, could but produce systemic derangement, and here it had caused hay fever and asthma as the sequel proved. A small portion of the swollen posterior end of the middle turbinate was removed with the cold snare. No other nasal treatment was given. The patient was forbidden to taste meat of any kind and to omit the use of tea and coffee. Twenty drops of the saturated solution of the iodide of potash after meals three times a day were prescribed. At the end of a few days the nasal condition was markedly improved and a week later the nasal membranes had returned to their normal condition. The puffiness and oedema had disappeared, as had the asthma and nasal discomfort. Even the huge swelling of the posterior end of the middle turbinate was no longer present.

The next case is one of hay fever with asthma. Mr. F., aged 28, a tobacco-nist, in his attention to business not infrequently would remain in his shipping office at work the whole night through. His custom was to eat his meals hurriedly and hasten immediately to his work. This mode of living had produced an anæmia, which from year to year was accompanied by hay fever and severe asthma. Mr. F. has been under my care from time to time for several years, during which I have had occasion to remove a few small polypi from the region of the middle turbinates. My treatment, except that applied to the nose, had been general and with no recognition of a possible dietetic origin of the trouble. About the middle of August, 1898, he called at my office one morning suffering greatly from asthma and a profuse watery discharge from the nose. He gave the following history. "Last Sunday I ate heartily and afterwards took a long bicycle ride. On my return I felt badly and my mother brought me a glass of some very sour wine and told me to drink it, saying it might make me feel better. I did so and early next morning my trouble began, and I have been growing worse ever since." Examination of the nasal cavities revealed no abnormalities save the characteristic oedema and watery anæmic appearance of the puffed membranes. There were no polypi present. The septum was straight. Acting on the supposition that uricacidæmia was the cause of the trouble, Mr. F. was treated accordingly and in a few days entire relief was obtained. No local treatment for the nasal mucous membranes was given. It is of interest to note here that Mr. F's father accompanied his son to my office. He was lame and walking with a stick, and on looking at his feet, I saw that from the right shoe the greater part of the upper had been cut away. "Gout?" I asked. "Yes, this attack has lasted now for some time. When I was a young man I suffered from asthma just as my son does now. Since the gout first attacked my toe, now a good many years ago, I have never had an attack of asthma. I have notes on another case in which the appearance of gout was followed by complete cessation of an asthma of many years' standing.

With the above cases before us it will be well for us to consider the most widely spread beliefs in regard to the cause of hay fever. The pollen hypothesis has had and still has many advocates, and yet frequently patients ask: "If my disease be caused by pollen why is it that —?" the remainder of the question varying and being seemingly unanswerable on this hypothesis. For example, Mrs. C., aged 50, a large, full-blooded, active woman, has suffered from autumnal hay fever for many years. In 1897 when the season of the year came around for her to have an exacerbation, i. e., the latter part of August, to her delight her nose remained comfortable, yet hardly had she congratulated herself when she was taken with "something resembling a congestive chill and was desperately ill for a few days." In talking to Mrs. C. about her case she told me of a friend of hers, and a great sufferer from hay fever, who had "had at the time the hay fever should have come on" a similar congestive attack, and that year she "had escaped hay fever."

Considering hay fever as a manifestation of uricacidæmia, these "congestive attacks" are susceptible of explanation; considering hay fever as a result of the action of pollen in diseased nasal membranes, we are at a loss to know why the latter case should have escaped hay fever during the season for it, when others in the same region were effected as usual.

LOCAL MORBID CONDITIONS OF THE NASAL MUCOUS MEMBRANE.

The rhinologist who would confine the origin of all intra-nasal troubles to the nasal cavities and their contents is the one which appeals most strongly. It is certainly true that in all cases at the time of the exacerbation of hay fever or asthma we find either abnormal or pathological conditions present in the nasal membranes; but that these conditions are the cause of the hay fever has never been proven. Again conditions similar to those found in the noses of hay fever sufferers, so far as the eye may judge, exist in the noses of people who have no hay fever. Or take the visible condition of the nasal membranes during the attacks of hay fever and during the long months when the hay fever is absent; no advocate of the pollen hypothesis claims that the nasal mucous membrane returns to normal after the pollen season is over. Some claim that curing the diseased, and I suppose that they mean the visibly diseased, intra-nasal tissues cures the hay fever.

Let us examine the visible conditions of the nasal membrane in a few cases of hay fever. Mrs. C., aged 50, above mentioned, has had hay fever in August and September for many years, and it always makes its appearance with an intense itching in a small mole situated on the face about three quarters of an inch from the left ala of the nose. Later her eyes began to water, burn and itch, and then the nasal trouble begins. I have had occasion to examine Mrs. C's. nose, both during and between attacks; at the latter times I could find no condition existing for which I could in another person not suffering from hay fever, advise treatment of any kind. The septum is not perfectly straight and regular, but nowhere touches the turbinated tissues, which save for a moderate amount of puffiness (no hypertrophies) are to all appearances normal. During the attacks which are of great severity the swelling is never sufficient to entirely block the air passages. 2nd. The case of Mr. A., aged 35, in whose nose the only visible abnormalities were some tendency to puffiness of the turbinates. 3rd. Miss L., aged 16, seen at the height of attack, turbinates much swollen, the posterior end of the left middle turbinate so much so that forced as it was against the septum might if unrelieved have been the starting point for one or more polypi. The membranes returned to normal without direct treatment, save removal of a small piece of swollen turbinate. 4th. Mr. F., aged 28, had several small polypi springing from the superior turbinate, and some general hypertrophy of the turbinates posteriorly. Removal of the polypi and treatment of the hypertrophies did not prevent the recurrence of the hay fever and asthma.

The nasal polypi alone are not necessarily the cause of hay fever is shown by the fact that many cases are seen where nasal polypi, even in

large numbers, exist without it. That the reverse is true, I think there can be no doubt, viz: that whatever causes the hay fever acts so profoundly on the nasal mucous membrane that changes are brought about which result from time to time in the formation of polypi.

This can scarcely be denied by any one who has examined many cases of hay fever, for all stages of the development of nasal polypus can be observed.

The cases above mentioned, especially those of Mr. A. and Miss L. seem to show clearly that excessive meat eating may produce nasal troubles which in no demonstrable particular differ from the ordinary perennial and autumnal hay fever; that the visibly abnormal conditions and the discomfort accompanying them disappeared after regulation of the diet shows that what is put into the stomach has far more to do with the causation of some forms of hay fever and hay asthma than has any local morbid intra-nasal condition; that during the past hay fever season every case I have seen, which would follow out my directions in regard to diet &c., has either been relieved or much benefitted, and this while continuing to live without change of surroundings, making no effort to escape from "the pollen laden" atmosphere, seems to show that hay fever and hay asthma are food, not pollen, products.

In regard to the treatment of autumnal hay fever and hay asthma, little need here be said. Where the nasal tissues are the seat of the polypi, the latter should be removed. True hypertrophies and obstructing septal deviations and ridges or spurs and synechiæ demand surgical interference. The patient, however, should be told that this work is done, not to cure the hay fever, but because it will render the nose more comfortable, and would be required in any case. Physiologically, swollen turbinated tissues no more requires the assistance of surgery or the cautery in any of its forms, than does the patch of acute eczema or the œdematous ankle of bright's disease. The application of the cautery to the turbinated membranes swollen in an exacerbation of hay fever and as the result of uric acid irritation may give the patient some temporary comfort, but does not cure the hay fever, and does actual harm. During the exacerbation a camphor-menthol-albolene spray will give considerable relief. One's success in the prevention of the attacks of autumnal hay fever and in lessening their duration and severity when present will depend, however, first of all upon one's recognition of the facts that it is the result of improper eating and living, that it is neither necessarily the result of visible morbid intra-nasal conditions, although these may exist, nor of the action of pollen, although dust and pollen may have their influence in increasing the severity of the intra-nasal irritation, and lastly, that hay fever does not depend upon a "neurotic condition" or an idiosyncrasy.

Considering hay fever as the result of uricacidaemia the dietetic treatment should be accordingly. It is of the first importance that our patient should give up altogether eating meat for some time before and during the hay fever season. Such articles of food as raise the acidity of the blood and

thus prevent the excretion of the uric acid present in the blood should also be forbidden.

Haig has shown that meat, inasmuch as it contains uric acid is the article of food which, if used in excess, and especially if taken with substances such as wines, beer, tea, coffee, etc., which raise the acidity of the blood, will sooner or later produce uricacidaemia. Repeated attacks of uricacidaemia bring about irritations and inflammatory conditions in various parts of the body, and also in time produce changes whereby the power of excreting not only the uric acid introduced into the blood with the food, but that produced in normal tissue metabolism, is weakened. This latter should be borne in mind, as it helps to explain why the attacks of hay fever are, as a rule, more easily controlled by regulating the diet and by the administration of alkalies and tonics in the case of young than of older people. I am convinced, however, that the deleterious effect of a meat diet in the causation of uricacidaemia is not solely due to the uric acid it contains, for this is relatively small in amount. Meat contains elements that stimulate tissue metabolism. This metabolism results in the production, among other things, of uric acid. If now, this uric acid be for any reason not excreted, but retained in the blood; uricacidaemia results.

For calling my attention to this point I am indebted to Dr. J. S. Wellford, of Richmond, Va.

Coffee, tea, cocoa, acid wines and beer are, besides meat, the chief articles of food forbidden by Haig. Coffee, tea and cocoa have for their active principles substances identical with uric acid, and thus used as food, not only raise the acidity of the blood, but add uric acid to the amount already present in the blood. Acid wines and beer, which is also acid, not only raise the acidity of the blood, but result in increased tissue metabolism, which as above stated means increase in uric acid.

Eggs increase tissue metabolism. I do not mean to convey the idea that these substances should be forbidden to all the world as articles of food; but I do wish to say that in the treatment of uricacidaemia we should bear these facts in mind and make use of them accordingly; for we shall meet with patients where the strictest avoidance of all the above mentioned articles will conduce greatly to their well being.

If our patient is seen a few weeks before the hay fever season begins and will follow our suggestions in regard to diet, exercise, bathing, &c.; then, in young people a mild tonic is all the additional treatment necessary; if the young patient come under care first during the hay fever season, an alkali in the beginning in considerable doses will be required. In older people the success of such treatment, while striking, is not always successful. Why? Probably because after repeated attacks of uricacidaemia when the general tissue changes are great and when the power of excreting uric acid formed in the normal tissue metabolism is lessened, their result changes, whereby enough uric acid is retained in the blood to bring about uricacidaemia. It is important to bear this in mind or we may attri-

bute our failures to the wrong cause. As a rule, the older the patient, the more he has lived up to the notch of a meat and acid diet, the more difficult do we find the hay fever, exacerbations to control.

In cases of perennial hay fever and asthma, our problem is vastly more complicated, for we are dealing with the conditions of the blood, in which precipitation of uric acid takes place with great ease, and in many of these cases tissue metabolism is so imperfectly accomplished that the result is conditions which perpetuate a chronic uricacidaemia. The question is then no longer of a meat or vegetable diet, with the administration of tonics or alkalies. We have to regulate the organs which excrete uric acid and thus prevent its undue accumulation in the blood. We have to restore the normal tone to general tissue metabolism which regulates the condition of the blood, and at the same time the relative ease, or difficulty, with which uric acid is precipitated into the tissues. Anxiety, fright, over-exertion, want of proper bodily exercise, interference with the functions of the excretory system, whether through causes organic or functional, food, the relative constituents of which are unsuitable to the mode of life, and many other things which to begin to mention would take us too far afield, all have their influence in bringing about uric acid precipitation.

Thus we see the problem of affording relief may be vastly complicated. It is not, however, always so, and if we bear in mind that hay fever and asthma are but manifestations of uricacidaemia and treat our patient accordingly, while we may have failures, we shall also have successes.

DISCUSSION.

Dr. J. N. Upshur.—I don't know any one who could read upon such a subject as this whose statements would command greater respect and attention from me, than my friend Dr. Dunn. I know how careful he is in his reasonings, how careful he is in stating a conclusion unless he has just cause for that conclusion, and it is not with the intention of criticising him, but simply because there are some few things in connection with hay fever that are not, even with his clear reasoning, perfectly clear to me, no doubt due to my inability to grasp the subject as I should. One of these facts is a very new and interesting fact, that hay fever may be due to excess of uric acid in the blood. It is very easy to understand how it can be due to uric acid when we remember that one of the manifestations or conditions of that trouble is seen in itching which we have about the nose, evidently when there is too much uric acid in the blood. But the point which interests me particularly in connection with this and which I do not understand, is that patients who are subjects of hay asthma, if hay asthma is due to an attempt of elimination of uric acid through the mucous membrane, why these patients should have the same conditions existing in the same system, and yet have hay asthma only at certain seasons of the year. Now, I have a lady patient who has been a subject of hay asthma for a great number of years, who no doubt is more or less lithemic, who has had manifesta-

tions of lithemia or gout at other seasons of the year. But where there is nothing special in the food to develop this hay asthma, yet regularly at the given day in August each year, and year after year, often without any premonition, will develop the symptoms of hay asthma. I have known this lady under conditions where the diet has been exceedingly abstemious, where she has been traveling or at sea for hours and taken no food at all. A week subsequent, on the 22nd day of August, without any premonition, entering the sleeping car to leave the city, she sneezed and hay fever came on and lasted for six weeks. Now, I think if it can be explained on this line, and if the treatment which is to effect a cure can be effected from a dietetic standpoint, we are very much indebted to these gentlemen who have carefully and honestly and with marked ability pointed out this new road toward health. If you gentlemen have seen this sort of thing, you know there are few things that have caused greater suffering. That is the difficult point for me to understand with regard to hay asthma, and I would like very much for the doctor to explain why they do not have these phenomena at other seasons of the year, why they are developed simply at the hay asthma season from the presence of uric acid, when it seems to me that if this be the cause they should have this trouble in any other month of the year,—January, February, or any other month.

Dr. Dunn.—The patient to whom you refer, Doctor, does she never have hay asthma except in August?

Dr. Upshur.—This lady is a patient of the doctor's, let me say, and has as much confidence in him and admiration for him as I have. She has had slight manifestations of hay asthma in June, but not with the same regularity that she has had in August. Since sitting here, one thing has suggested itself to me as probably a cause of this manifestation in June, and that is, that she is exceedingly fond of strawberries, and probably my theory of strawberries may there have come out, but at other times of the year, the same conditions existing, this lady, who is also a patient of mine, has no manifestations or indications of hay asthma, and yet for twenty-five years she has had this same manifestation of hay asthma in August. She has had hay asthma and been at sea for a week and lost it entirely. Of course, the dietetic element would come in there, because she was taking no food while at sea, but the moment she landed the symptoms of hay fever have returned, and that is a thing I am interested in. It is for information and arriving at some happy issue in this matter that I want the Doctor to arrive at some conclusion that I can grasp.

Dr. Dunn.—I don't know that I shall be able to explain this seeming peculiarity of the attacks of hay fever to the Doctor's satisfaction. The point occurred to me, and I put it in this paper, but felt the paper was too long and cut it out, but I will make an attempt at an explanation. During the hot weather, when the days and nights are both warm, when there is nothing to prevent an active perspiration, the patient who is lithemic is able by exertion, by the action of all the excretory organs, to get rid of the excess of uric acid,

I can see, however, that when this is done, it leaves no reserve force in the matter of excretion for the excretory organs. About the middle of August the nights begin to get cool, the person may not be conscious of this fact, but at the same time the overworked skin glands do feel it, and it is their failure to eliminate the uric acid that they have been eliminating under high pressure, as it were, during the hot summer, that brings about this attack. And why the attack should be seen in the nose it is not difficult to conceive when we remember how many people in their early childhood suffer from nasal troubles. I could tell you of a very interesting case in this connection just here, but will say that so far as I am able to judge, the autumnal hay fever occurs about the same time every year.

Dr. Jos. A. White.—It is a little out of order to make remarks upon a paper when the author has practically closed the discussion, but I understand Dr. Dunn was simply answering a question. The theory Dr. Dunn has just enunciated, is of practically recent origin, since the investigations as to the effect of lithemia and its various manifestations, is simply the new explanation of what is the causation of the development of hay fever, but I have no doubt in the world that experience has demonstrated that it has a very good foundation in fact, but by itself displays all the various phases and manifestations of those reflexes that we meet with in connection with nasal troubles. For instance, as I understand Dr. Dunn to state, that he has practically drawn the conclusion that hay fever is to be ascribed to a neurosis, and I think in that respect his paper is what I would have expected from him, but I don't think he has drawn exactly a correct conclusion.

Dr. Dunn.—I may have said that, but I am willing to admit that the conclusion may not be correct.

Dr. White.—I have had considerable experience in these cases and I am very familiar with the theories trying to explain these peculiar mysteries that we meet with all the time in the practice of medicine, of which we have no satisfactory explanation, and to-day they haven't any satisfactory explanation. We are always trying to form theories that we work out, and we always come sooner or later to some stumbling-block that won't accord with our theories, and we pass over these to look for something else. This is not only true as regards hay fever arising from the spores of plants, or some blood alteration like uric acid, but it applies to other things besides hay fever and asthma. Now, I am satisfied that it is the cause of a great many attacks in the case of hay fever and ordinary asthma, that it is not periodic, which we do not call hay asthma, but I am satisfied also that the true explanation of it is, from whatever cause, I don't care whether it is irritation that started out with symptoms, I don't care what causes this, it is after all the neurosis theory that is always the best. It is always going to have a foundation. I don't care what else you add to it, it always comes back to one single thing, and that is the weakness of the nerve centers, the weakness of the reflex sub-centers that allows these peculiar manifestations as to the result of any irritation, and the result of hay fever is too well known a fact for anybody to

dispute. I have seen an attack of asthma, a violent attack of asthma; an attack that did scare me more than the patient because the patient has had them often, I thought the patient was going to strangle in my office. All of us have had that experience. Why should touching some point of irritation in the nose cause a violent attack of spasm of the bronchial tubes? Yet I have seen it repeatedly. That isn't because there is uric acid in that man's blood. He has uric acid there all the time if he has it at all. There is no more reason why touching his nose should give him that attack than touching his toe because of uric acid. It is because the respiratory tract, when irritable in this way, is controlled by sensitive nerves immediately conducting that impression to a sub-center that we find this peculiar manifestation or characteristic. I don't doubt that uric acid may be the cause that has weakened these centers so that they are easily affected by an irritation, because if they had not lost ordinary resistance there would be no reflex manifestation of neurosis. The same thing applies to periodical attacks. Why is it that we have every now and then an influenza that propagates itself all over the country in every direction? Why don't we have that sort of thing all the time when a man has a cold in his head? Because of peculiar atmospheric conditions. It doesn't attack everybody. It may attack me, and my neighbor escapes. Because I am not immune from whatever it is that propagates the trouble. So it is that these people who have these weak centers are affected at certain seasons of the year by certain atmospheric influences.

Dr. Robinson.—I hate to get up so often, but this is a subject in which I am very much interested. I was for twenty-five years a subject of hay fever myself, and I have suffered a good deal at the hands of Dr. White, both of torture and of relief. The paper of Dr. Dunn impressed me very much. For twenty-five years I sought the sea coast and the sea air for relief, and it usually gave me immunity while I was there. The inference would be that there was some atmospheric cause at work that from the 20th to the 30th of May provoked these attacks. That doesn't necessarily imply that uric acid conditions underlying my nose locally have gotten my nose in a condition to make it more irritable to atmospheric causes. Not only that, but a statement from Dr. Upshur bears out the fact that although when I did go to the seashore and come back, if I would eat fruit I would immediately have an attack, even before I got through. For twenty-five years I was subject to urinary troubles and uric acid diathesis. For three years I have taken alkalies when I was dieting myself pretty regularly. In that time I have not had any recourse to sea air and I haven't had any hay fever.

Dr. Dunn.—I simply want to say this in regard to neurosis. Dr. White and myself are in accord in our views in regard to it. What I meant by saying that hay fever is not a neurosis is that the severe impression made by the irritation of the uric acid on the mucous membrane of the upper air tract, this irritation may be so great that such an impression may be made upon the centers that neurosis may result. Hay fever is not a neurosis itself, although the excessive irritation of the mucous membrane may make such an impression on the nervous center as to cause a neurosis.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.

W. H. WAKEFIELD, M. D.

Editors and Proprietors.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.

J. HOWELL WAY, M. D., Waynesville, N. C.

J. ALLISON HODGES, M. D., Richmond, Va.

S. WESTRY BATTLE, M. D., Asheville, N. C.

GEO. G. THOMAS, M. D., Wilmington, N. C.

R. L. PAYNE, M. D., Norfolk, Va.

H. S. LOTT, M. D., Winston, N. C.

J. W. LONG, M. D., Salisbury, N. C.

H. A. ROYSTER, M. D., Raleigh, N. C.

ALBERT ANDERSON, M. D., Wilson, N. C.

J. P. MONROE, M. D., Davidson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

THE COMMISSION EVIL.

The medical press of the country has been more or less exercised for the last few months over the so-called commission evil. Articles have been published asserting the fact that many specialists in the large cities, particularly surgeons, were in the habit of paying a certain portion of their fees to the general practitioners who referred cases to them for operation or special treatment.

It was even stated that physicians had been known to "hawk" their patients about from one specialist to another in order to get the best commission possible for themselves, finally turning their human merchandise over to the highest bidder.

We are inclined to believe, with the *Medical Record*, that such instances have been the exception and not the rule, while admitting that in some sections this practice has gained ground. This view is strengthened by the belief that, although men in cities doing special work in the face of strong competition, may now and then fall a victim to their avarice or ambition, there are few classes of our citizens more honest and straightforward in their dealings with their patrons than the family physician. Hence, if this be, as some declare, a wide-spread evil, we are forced to the conclusion that this large portion of our profession is commonly actuated by sordid motives and untrustworthiness. That such is the case, no well informed person would for a moment believe. On moral grounds we do not see that the acceptance of such a commission could be justified, unless it be taken with the knowledge and consent of the patient. Any other arrangement would have in

appearance, as it would be in fact, a secret combination for the spoilation of the third party—the sick man.

In this connection, Dr. Morris, of New York, in a communication to the *Journal of the American Medical Association*, says :

"Payment of commissions would undermine the very pillars and foundation of responsible medical service, and would instantly bring us down into competition with charlatans. It is apparently a fact, however, that the commission evil has gained a foothold in a small part of the country, and perhaps very good land has been invaded by the Russian thistle. In order to keep reputable specialists who are subjected to the unfortunate influence of the commission evil, I propose that at the next meeting of the American Medical Association a resolution be adopted to the effect that any practitioner of medicine who gives or receives a commission for cases referred to or by him, shall be expelled from membership in the Association. I also propose that specially printed, conspicuous cards bearing a copy of this resolution be given to the secretary of the Association for distribution to applicants. Any one who needs to protect himself can display the card in a manner suitable to an occasion."

The editor of the *Medical Examiner*, Dr. Geo. A. Wells, of New York, has attempted to defend the position of the man who gives and receives commissions, by the supposed analogous customs of lawyers, and on the ground that the general practitioner will advise his patients to seek special treatment more promptly when it is necessary, instead of attempting to hold the case as long as possible in the hope of making a larger bill. In the same editorial he gives vent to a tirade upon the Code of Medical Ethics, which he pronounces "old fashioned" and obstructive. For this, and his position in the commission business, he is very properly "roasted" by the *Philadelphia Medical Journal*.

We are persuaded that the commission evil is merely a question of moral and ethical interest to the physicians of this section of the Country, as we have never heard of any instance where it has been put into practice, and we are confident that ninety-five per cent. of the medical men who read this article would instantly pronounce the clandestine receiving of a commission as not only unprofessional but dishonest.

The editorial work on the NORTH CAROLINA MEDICAL JOURNAL is to a great extent "a labor of love" but at the same time the necessary expenses of such a publication are not small, and the recent improvements in the JOURNAL have added considerably to its cost. From time to time new features will be added (incurring additional expense) in the effort to materially raise the standard of the JOURNAL. The "rank and file" and the "officers" of the profession in the Carolinas will compare favorably with those of any other State, and if we can enlist their hearty co-operation in our attempt to make the NORTH CAROLINA MEDICAL JOURNAL highly useful and creditable, success will have already crowned our efforts.

We accept as a part of our mission the development of our "home talent," abilities of no mean order, that are now lying dormant. We believe our readers would prefer more "home-made" papers, and we take it upon ourselves to stir you up to the discharge of your duties. Our business man says "don't overlook the little matter of your subscription;" it is not much to you, but when added to others, it means a great deal to us.

If you are not a subscriber, we respectfully solicit your subscription and your influence.

Correspondence.

To the Members of the Medical Society of the State of North Carolina:

As the Secretary has had a number of letters from members of the Society in regard to the Transactions for 1898, some public statement concerning them is doubtless admissable on his behalf. Dr. R. D. Jewett has had the minutes and papers of the 1898 meeting since last summer, he assumed all responsibility for their publication and distribution as he was Secretary for the last meeting and one of the Committee on Publication, all of which was eminently fit and proper and the purpose of this notice is simply to mention the facts in the case. All credit in regard to the Transactions for 1898 is due Dr. Jewett and to him all complimentary communications concerning them should be sent.

GEO. W. PRESSLY, M. D., Secretary.

EXPLANATION BY DR. JEWETT.

In explanation of the long delay in the appearance of the Transactions, a copy of which we feel assured has by this time reached all those entitled to receive one, I beg to state that I had no instructions from the Committee on Publication to proceed with the publication, until a batch of the papers read at the meeting of the Society was mailed to me by the Secretary, together with a letter stating that I would probably need these papers in publishing the Transactions. This was more than sixty days after the meeting of the Society, though I wrote the chairman of the Committee offering to do the work. After this, more time was lost in the effort to secure some reports made to the Society, some of which were never received and do not appear in the printed Transactions. The greatest delay, however, was due to the fact that when the printed matter was nearly ready for the binders, the concern having the contract for the printing received a rush of other work, and the Transactions were shoved aside. Promises were made and renewed at each interview with them that the work would be soon completed. Had it not been for the fact that a considerable advance in cash had been made to the printers, which I could not afford to lose, the work would have been thrown upon their hands and a new contract made with other parties. This, however, would have delayed the appearance of the volumes longer still. I assure all those who have been annoyed by the delay that it has caused me untold annoyance, and I trust that they will not allow their "communications" to be too (satirically) "complimentary."

Very respectfully,

ROBERT D. JEWETT.

News and Items.

The second copy of the *Southern Medical Journal*, published by the versatile Dr. J. W. P. Smithwick, of LaGrange, N. C., is on our table. Dr. Smithwick is a clever writer and hard worker, and we wish him abundant success in his new field of labor.

Commendable Action on the Part of the Tri-State Med. Asso. of Ark., Miss. and Tenn.—At the regular meeting of this society held in Memphis, Tenn., Dec. 20th, 21st and 22nd, the following resolutions were adopted :

Whereas, the medical laws of the various States have been so perverted by political influences as to give legislative sanction to grotesque, ignorant and dangerous sects of pretenders and charlatans; and

Whereas, the privileges granted to one of the most outrageous aberrations, namely, the so-called Osteopathy, constitute a disgrace to the States in which the "Osteopaths" are legally intrenched; and

Whereas, a certain William Smith, Osteopathist, having been roundly denounced, together with his sect, by Parke, Davis & Co., and the *Medical Age*, now brings suit against both for \$25,000.00 damages; therefore

Be It Declared the sentiment of the Tri-State Medical Association, of Mississippi, Arkansas, and Tennessee, that Parke, Davis & Co., and the *Medical Age* are entitled to the sympathy of its members and of all medical practitioners; that we wish and expect them to enjoy a complete triumph in repelling this legal assault; and that wheresoever a powerful House takes a bold stand in opposition to quackery it promotes the interests of legitimate and honorable Medicine and the welfare of humanity.

The North Carolina State Medical Society meets in the hospitable city of Asheville, May 30, 31, June 1 and 2. This date was selected by the Asheville Medical Society after due conference with the president and secretary of the State Society. The Battery Park Hotel will be headquarters, in fact, the society will meet in its spacious ball room.

The committee of entertainment obtained a rate of \$2.50 per day at this hotel for members of the society and visitors.

Asheville is at all seasons a delightful place to visit, but at this season when the grand old mountains are freshly clothed in green and the mountain ivy and other shrubs and flowers are in bloom, it is of all towns in the State the most inviting, and we anticipate a full attendance and a pleasant visit to the Land of the Sky.

Congratulate You, Gentlemen.

A house that is committed to a policy of *Medicamenta vora*—to quote its own motto—deserves success, hence when it finds itself compelled continually to enlarge its borders, it is a standing rebuke to those who would practically deny that "Honesty is the best policy." Indeed, the products of Parke, Davis & Co. are so thoroughly and warmly appreciated by the medical

profession that this famous exponent of the "gospel of good goods" has frequent occasion of late either to build new home laboratories or to multiply its distributing points.

In proof of this, attention need only be called to their manufacturing laboratories in Walkerville, Ontario, and in London, England, which assist in more promptly supplying their Canadian, English, European, East Indian and Australasian trade, while with a similar object in view, Parke, Davis & Co. maintain branch establishments in these United States in New York City, Kansas City, New Orleans and Baltimore—each one of which has been obliged to seek more room than was deemed necessary on its original installation. Their flourishing Baltimore Branch is the latest instance.

Although only established in 1896 in what was then considered very spacious premises, the increased volume of business has thus quickly made it imperative to seek larger quarters. A "Removal Notice" from the gentleman in charge of this Branch, Mr. O. W. Smith, informs us that its new and commodious home is now to be found at 103 E. German street, Baltimore, Md.

We cannot do *less* under the circumstances than extend our congratulations to Parke, Davis & Co., for this substantial evidence of the rapidly growing popularity of their preparations amongst the physicians and pharmacists in the populous district tributary to Baltimore. We cannot do *more* than say that we have long since come to consider their products as our "*Ultima Thule*" of therapeutic efficiency.

Celebration of the 50th Anniversary of Philadelphia County Medical Society.—By Philadelphia correspondent of N. C. MEDICAL JOURNAL.—The celebration of the 50th anniversary of the Philadelphia County Medical Society occupied the evenings of Jan. 14th, 15th and 16th. On Saturday evening, Jan. 14th, the society met in the hall of the College of Physicians and listened to a most interesting and eloquent oration delivered by the brilliant young surgeon, Dr. J. Chalmers Da Costa. Dr. Da Costa's manner of delivery as well as what he said gave him a most attentive audience. He began by picturing in an interesting manner the conditions, political, social, and medical existing at the time of the founding of the society in 1849. He reminded his listeners that Victoria had been queen of England but 12 years, that Gladstone was then a Tory, that Louis Napoleon was the president of the French Republic, Macauley was writing the third volume of his history of England, Thackeray was writing *Pendennis* and Dickens, David Copperfield. The United States numbered but thirty States, California being the most recent acquisition, and the orator here amusingly referred to the opposition at that time displayed by many public men of prominence to the policy of territorial acquisition. The Senate of the United States was filled with statesmen, with law makers, not law sellers, among them Webster, Clay, Benton, Calhoun, Douglass and Cass. Philadelphia possessed at that day many eminent men whose names will not soon be forgotten. Geo. B. Wood, professor of Physic at the University of Pennsylvania, John K. Mitchell, professor of Practice at Jefferson Medical College, Nathaniel Chapman of

the University, the wit of his day, who had stories for the parlor and stories for the students, Joseph Pancoast of Jefferson, the master of surgery, William Gibson, professor of surgery at the University, Charles D. Meigs, professor of obstetrics at Jefferson, Robley Dunglison, Thomas S. Mutter and many others. Of the charter members of the society only one survives, Dr. Alfred Stille. To-day, the society has a membership of over 700. The history of the contest over the admission of women to membership in the society was amusingly told, it lasted from the sixties to 1888, when the first woman was admitted. In 1868 a resolution was adopted that no member of the society should consult with a woman physician or hold a chair in the Women's Medical College. (To-day there is a large number of women in the society and one is on the Board of Directors; and two at least of the Presidents of the Society were professors at the Women's College while holding office). The orator closed with a comparison of the means now at hand for relieving the sick and injured with those enjoyed by the founders of the society. On Monday evening, 16th inst., more than 350 members attended the banquet at Horticultural Hall, with many distinguished invited guests from Philadelphia and neighboring cities.

Dr. S. Solis Cohen, vice-president acted as president and toast master in the absence of Dr. Edward Jackson. The toast "Our Founders" was responded to by letter from Dr. Alfred Stille, the aged and distinguished founder, who began by saying that the father of the society was the American Medical Association, its mother the Pennsylvania State Society, that it was conceived on December 18th, 1848, and born on January 16th, 1849, and that he witnessed both conception and birth. He then pictured the early days of the society and its rapid growth as to members and influence. Dr. W. W. Keen responded to the toast. "The Philadelphia county Medical Society," and was frequently applauded. The toast next offered was, "The Medical Journal," and was responded to by Daniel Baugh, president of the Philadelphia Medical Publishing Co., which owns and publishes the *Philadelphia Medical Journal*. He said, that a Medical Journal should contain all news interesting to medical men and not only scientific articles. He also laid stress on the fact that it was the duty of the medical journal to keep up the tone of the profession and not lower it by advertisement or articles that were unworthy of it. Mr. Talcott Williams, of the Philadelphia Press, responded to the toast "The Newspaper," he was very energetic and very witty. The response to the toast, "The Clergy," by Rev. Charles Wadsworth, Jr., produced more laughter than any other. Dr. Jacoby, of New York, was present as a guest and gave his views on the duties of the Society and Medical Education.

Compensation for Slip-Shod Methods.—A physician in speaking of the business side of the practice of medicine says: "A doctor will trust people longer and more foolishly than any other person on earth. He will go on trusting people for years, until they leave him on account of hating him because they have owed him so much and so long. Then they will go to another physician and pay him with little or no hesitancy."

Book Reviews.

Annual and Analytical Cyclopædia of Practical Medicine. By Charles E. de M. Sajous, M. D., and One Hundred Associate Editors, assisted by Corresponding Editors, Collaborators and Correspondents. Illustrated with chromo-lithographs, engravings and Maps, Vol. II. The F. A. Davis Company, Philadelphia. 1899.

This volume embraces from "Bromide of Ethel" to "Diphtheria." While in the first volume most of the sections were prepared under the supervision of the editor and submitted to the various members of the associate staff for revision and correction, this volume inaugurates the regular plan of the work as regards elaboration, all of the articles having been prepared by their respective editors. Many of these articles assume the importance of essays, so complete are they. As in the first volume, the main text is in large type, the excerpts being in smaller type, and the literature of 1896 and 1897 separated. This volume contains many valuable articles by prominent men, and differs in this respect from the usual "annual" which contains merely a collection of condensed abstracts from journals published during the preceding year.

It will be remembered that the present work supersedes the annual of the Universal Medical Sciences, which was formerly edited by Dr. Sajous. The *Monthly Cyclopædia of Practical Medicine* is furnished free to subscribers of the *Annual* and serves as a monthly supplement to the larger work.

Dr. Sajous deserves the thanks and support of the profession in the excellent work in which he is engaged. The possessor of the *Analytical Cyclopædia* will be kept informed in regard to recent developments in all branches of medicine. Matters of importance which are too late for appearance in the *Annual* are noted from month to month in the *Monthly Cyclopædia*.

A Text-Book of Mechano-Therapy.—(Massage and Medical Gymnastics). Especially prepared for the use of medical students and trained nurses. By Axel V. Grafstrom, B. Sc., M. D., late Lieutenant in the Royal Swedish Army, late House Physician, City Hospital, New York; with eleven pen-and-ink sketches by the author. Octavo, pages 140. Price, \$1.00 net. W. B. Saunders, Philadelphia, 1899.

The author has presented, in the volume before us, a very interesting and well-prepared essay, in which the methods of and indications for massage are carefully and scientifically discussed. The illustrations are from pen-and-ink drawings by the author himself and are well executed. The system practised by the Royal Gymnastic Central Institute, Stockholm, Sweden, has been principally followed, with such modifications as are recommended by prominent teachers and authorities of this science.

A Compend of Human Physiology.—Especially adopted for the use of medical students. By Albert P. Brubaker, A. M., M. D., Adjunct Professor of Physiology and Hygiene in the Jefferson Medical College, etc., etc. Ninth edition, enlarged and revised, with new illustrations and a table of physiologic constants. Price, 80c. P. Blakiston's Son & Co., Philadelphia, 1899.

While there is not much new to incorporate in this volume, still the author has taken advantage of the opportunity to improve the style of the preceding editions in some particulars. The work is not in the form of questions and answers, but treats the subject in a brief, succinct manner. Along with others of its kind, it will prove very useful to students preparing themselves for examination, and for general practitioners who desire to briefly review the subject of physiology.

The Phonendoscope—and its practical application, with thirty-seven illustrations. Translated by A. George Baker, A. M., M. D., Physician in chief of the Chinese Medical Dispensary, Philadelphia, etc. George P. Pilling & Son, Philadelphia, 1898.

This is the day for exactness in methods of diagnosis and the many instruments which are being constantly invented do much to aid the physician in arriving at correct conclusions. The phonendoscope, introduced at the International Medical Congress at Rome, by Dr. Bianchi and Dr. Bazzi, has proved itself a most useful instrument for semiological examinations, and while we think the importance attached to it by the authors of the articles in the volume before us is rather exaggerated we do think that it will be a great aid in the determination of pathological conditions in the thorax. The book is intended to make the instrument more popular and gives full instructions in the method of using it.

A Story of Southern Life by a Southern Author.—From the press of Edwards & Broughton, Raleigh.

"Under Golden Skies, or In the New Eldorado," is a story which has for its object the laudable ambition of extolling the beauties and resources of the Old North State in general, but more particularly of the twin city of Winston-Salem. To one who has ever visited the quaint old Moravian town, and fallen under the spell of its old-time structures and bosky by-ways, this renewing of acquaintance will be especially acceptable.

So cunningly has the author coated the bits of information with the personal element, that one swallows and assimilates facts almost unconsciously, and we wonder that more liberal doses were not given, considering the abundance of supply.

The book is one that will go far towards arousing fresh interest and enthusiasm for our State, and should be in the hands of all our youth. As an addition to a Sunday School Library, it would be a valuable acquisition, as all the characters are noble, whole-souled men and women—in most instances drawn from life. While the plot might have been deeper, and the incidents more exciting, the aim of the author has been kept in view—"to aid in setting the good State aright before those who know her least," and after reading the good words in her defense, who is there "with soul so dead," who would refrain from magnifying her on every and all occasions?

Cataphoresis—or Electric Medicamental Diffusion as applied in Medicine, Surgery and Dentistry by William James Morton, M. D., author of "The X-Ray or Photography of the Invisible."

This work from the press of American Technical Book Co., N. Y., is a large 8 vo. volume of nearly 300 pages richly illustrated, bound in Half Morocco with Gilt Top and is admirably executed.

The contents are: Part I, Historical. Part II, Physics and Physiology. Part III, Apparatus and Outfit. Part IV, Application in Dental Surgery. Part V, Application in Medicine and General Surgery.

To praise Dr. Morton's work and to state that the book deserves a careful perusal by every practitioner of medicine and dentistry is but stating the truth of the merit of the volume. Many learned writers upon electricity make clear the underlying principles of electrical science and discourse satisfactorily upon its more complex problems, but they lack clearness in that portion of the field lying between the simple and the complex. This cannot be said of Dr. Morton. The

reader who follows the Doctor's exposition of Ohm's law will be much pleased with the cleanness of his demonstration; and what is said of this is true of the whole book which is a model in clearness of explanation and demonstration. In this work Dr. Morton has given to the profession a truly scientific and practical treatise on a subject that is attracting considerable interest. Beginning with its history the subject is carried forward step by step, the necessary apparatus described and its application in medicine, surgery and dentistry clearly taught closing with a chapter devoted to its application in microscopic work. The volume covers the whole subject and owing to the acknowledged ability of the author in this special field of labor it can be taken as a reliable guide and authority by the surgeon and dentist, in fact it is indispensable to all who use electricity as a remedial agent.

Saunders' Medical Pocket Formulary.—With an Appendix. By William M. Powell, M. D., author of "Essentials of Diseases of Children," etc. Fifth edition, thoroughly revised. W. B. Saunders, Philadelphia, 1899.

This volume is bound in flexible leather with flap and pocket. It has a convenient thumb index. Ready-made prescriptions are furnished for a large variety of diseases being arranged alphabetically. Besides these there are numerous tables for reference, among them a table of doses, incompatibles, gargles, the eruptive fevers, etc. A "surgical remembrancer" is a most useful part of the book.

Announcement of Importance to Every Physician.—Lea Brothers & Co. announce for publication in March, 1899, the first volume of **Progressive Medicine**, a new annual which will be issued in four handsome octavo, cloth bound and richly illustrated volumes of about 400 pages each. The several volumes will appear at intervals of three months. In this age of unusual progress, so rapid is the advance of medical and surgical science that the need for condensed summaries which shall keep the practitioner up to date at the least possible expenditure of valuable time has become imperative. The publication will receive the careful supervision of the general editor, Dr. Hobart Armory Hare, whose reputation will everywhere be acknowledged as ensuring practical utility in a high degree. With the appreciation of the self-evident utility of such a work to all practitioners, the publishers are enabled to ask the very moderate price of \$10 for the four volumes. The publishers offer to send full descriptive circulars and sample pages to those applying for them.

Antivivisection Tales.—The annual meeting of the American Antivivisection Society was held in Philadelphia last week, and the usual batch of misstatements was served up for the delectation of all old ladies and cranks present. One of the speakers, a physician, made the incredible assertion that he had personally witnessed the inoculation of forty patients at the Vienna General Hospital with the germs of syphilis, for the purpose of studying the initial lesion. He said the patients were from the peasantry. The speaker was flatly contradicted by other medical men who had studied medicine in Vienna, and who denied that such a thing could occur there or in any other medical school or hospital.

A NEW TABLET

By all druggists or sent by mail on receipt of \$1.00.

WM. R. WARNER & CO'S

Nervitone Tablets

(Trade Mark)

R	Phosphorus,	1-100 gr.
	Ferri Carb.	1½ grs.
	Asafetida,	½ gr.
	Ext. Sumbul,	½ gr.
	Ext. Nux Vomica,	1-10 gr.

Dose—2 tablets before meals for adults.

TAKE NO SUBSTITUTE.

PHOSPHORUS "It exists mainly in the nervous centers in the form of a peculiar compound with fatty matter, which has been named 'protagon' just as iron is united with haematin in the blood. It forms more than one per cent of the human brain."—Hughes.

Phosphorus is a stimulating nerve tonic, and in suitable cases a true tissue food in every sense of the word.

IRON is added for its general tonic effect and for its action on the blood, which is generally impoverished in the conditions just mentioned.

ASAFETIDA has been proven of value in nervous irritability, and is a stimulant to the alimentary tract.

EXT. SUMBUL The following has been written of Sumbul. "On the nervous system Sumbul acts as an efficient nerve tonic."

EXT. NUX VOMICA A bitter tonic, universally used for its influence on the nervous system.

By glancing at the above it will be seen that in Nervitone tablets we offer a combination of well-known nerve tonics and stimulants. It is a tablet that will cover a wide field of usefulness in physicians' prescribing. When the indications are for a prescription to correct conditions due to asthenia, neurasthenia or nerve exhaustion, whether the result of debilitating diseases or excesses, we have in Nervitone tablets a remedy which will give satisfactory results.

The drugs used in the manufacture of this pill are pure and active.

Specify Warner & Co. to obtain satisfactory therapeutic effect.

SUPERIOR TO PEPSIN OF THE HOG
INGLUVIN
A Powder—Prescribed in the same manner, doses and combinations as pepsin.
A SPECIFIC FOR VOMITING IN GESTATION IN DOSES OF 10 to 20 Grains.

WM. R. WARNER & CO. 1228 Market St., Philadelphia.

New York.

Chicago.

London.

When writing, mention the N. C. Medical Journal.

ix

1718

Reading Notices.

A VERY GRAVE ERROR.—The experience of the best men of the profession, not only of the United States but abroad, has established the clinical value of antikamnia. Among those who have paid high tributes to its value and who occupy positions of great eminence, may be mentioned Dr. J. Acheson Wilkin and Dr. R. J. Blackham, practitioners of London. They have found it of value in the neuralgias and nervous headaches, resulting from over-work and prolonged mental strain, paroxysmal attacks of sciatica, brow-ague, painful menstruation, la grippe and allied conditions. Indeed the practitioner who has such cases as the latter come under his observation, who attempts their relief by opiates and stronger drugs, when so efficient an agent can be used, which is much less harmful, commits a grave error.

Experience goes to prove that ten grain doses of antikamnia in an ounce of sherry wine, taken every two to four hours, will carry the patient through these painful periods with great satisfaction.—*Medical Reprints*, London, Eng.

NOTES FROM A PHYSICIAN'S DIARY.—La Grippe is again prevalent throughout the land, being epidemic in many sections of the country. The sick list is greatly augmented, much valuable time is lost, and the mortality is directly and indirectly increased by its presence. The disease in its protean manifestations is almost regarded as the scourge of the country, for it leaves in its wake more sorrowing hearts and shattered homes than any disease known in recent years. The medical profession of to-day should realize the importance of early and judicious therapeutics as applied to the treatment of La Grippe. From practical observation by men of experience in professional circles the following conclusions seem warranted. When a physician has diagnosed his patient's ailment as one of La Grippe, free catharsis should at once be instituted. For the intense headache, coryza, backache and general soreness, the following should be administered:

R
Liquid Antipyretic (Tildens) f. ʒ
Sig. One teaspoonful every three hours.

After the pyrexia is under control, the sequella of La Grippe, may be permanently removed by the administration of Tablets of Liquid Antipyretic (Tildens's) and Quinine ($2\frac{1}{2}$ grs. each) until all grip symptoms disappear. The troublesome cough, which is a frequent accompaniment of La Grippe is controlled by the administration of teaspoonful doses of whiskey ad libitum.

The Post-Partum Douche is not only unnecessary but harmful after normal labors. It is more likely to carry septic matter into the parturient canal than it is to remove any that might possibly be there. There is very seldom septic matter to be washed away unless it is carried there from the outside first.—*Ex.*

Pills—"Dosem has been expelled from the medical association for advertising contrary to the code."

Squills—"How did he advertise?"

Pills—"He was called to lead the prayer meeting the other evening, and he walked up front and he gave out the hymn, 'The Great Physician Now Is Here.'"

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIII.

CHARLOTTE, MARCH 5, 1899.

No. 5

Original Communications.

A Running Account of My First Three Years' Surgical Work.

BY HUBERT A. ROYSTER, A B., M. D., Raleigh, N. C.

One of the Visiting Staff, Rex Hospital; Surgeon-in-Charge, Lt. Agnes Hospital; Formerly House Surgeon, Mercy Hospital, Pittsburg, Pa.

[CONCLUDED FROM PAGE 142.]

VII. ABDOMINAL OPERATIONS.—My records show that up to August, 1898, I had opened the peritoneal cavity ten times. This series includes 3 hysterectomies, one oöphorectomy, one ovariectomy, three operations for ectopic gestation (one of these by the vaginal route) and two operations for appendicitis. Of these cases, two have already been reported and will, therefore, be merely referred to here. One was "A case of combined intra- and extrauterine pregnancy at term; the former child delivered alive naturally; the latter (dead) removed by celiotomy four weeks later; recovery.* The other was the removal of an inflamed and abnormally situated appendix, occupying a place in the right groin just beneath Poupart's ligament.† The eight remaining operations will be described under the pathological condition which was present.

1. *Fibroid Tumor of the Uterus*.—(a) Tempe L., colored, age 35; married 10 years, no children. Had noticed the large tumor for several years. Pain, hemorrhage and pressure symptoms marked. Her general condition was not good, the heart being feeble and anæmia very pronounced. She was told of the serious character of the operation and a probably fatal result predicted; but she preferred rather to run the risk than to live as she was. Supra-vaginal hysterectomy performed in June, 1897. Many omental and intestinal adhesions and much blood lost in breaking them up. Tumor weighed 14 pounds and so filled the pelvis that little room was left on either

*Am. Jour. Obstet. Dec. 1897.

†"A Surgical Surprise," Charlotte Med. Jour. Feb. 1897.

side to tie off the broad ligament and its vessels. Patient came near to dying on the table but revived, only to succumb to shock five hours later.

(b) Ellen H., colored, age 38; married, but sterile. Has had a tumor in abdomen for some years, with the usual symptoms of a fibroid, though the hemorrhage was not severe. Frequent attacks of localized peritoneal inflammation. In 1895 was treated for four months by electricity in a Philadelphia hospital, resulting in some amelioration of her symptoms for a time but with no diminution in the size of the tumor. For two months before she came to be examined she had been losing flesh, was troubled with dyspnea and her uterine symptoms were on the increase. Abdominal hysterectomy, supra-vaginal amputation, June 17, 1898. Cervical canal curetted first. Abdomen opened and incision prolonged until tumor could be eventrated. No intestinal adhesions. Tumor wedged tightly down into pelvic cavity. Ovarian arteries secured on each side. Peritoneal flap dissected off anteriorly, but none could be obtained posteriorly on account of close adhesion to peri-rectal tissue. Uterine arteries then tied inside the flaps of peritoneum. Silk ligature slipped off left ovarian artery during manipulations; tied again, but not until a considerable hemorrhage had occurred. Uterus then amputated above the cervix, its edges united and bladder flap brought over this with continuous catgut suture. Abdominal cavity irrigated with normal salt solution and a pint allowed to remain. Wound closed with through-and-through silk-worm gut sutures and buried catgut on the fascia of the recti. A quart of salt solution by the rectum before the patient was taken from the table sufficed to restore the weakened circulation. This is an invariable procedure after abdominal operations and is employed by the writer as a routine measure. It lessens the shock, almost entirely prevents the thirst and serves to increase wonderfully the urinary secretion. This patient reacted nicely and made an uneventful recovery. She is now strong and healthy.

(c) Cilla H., colored, age 32, single and though she was a common prostitute for a number of years previously, never became pregnant. Came under my observation first in 1896, when a large fibro-myoma was found and operation advised; but she procrastinated and did not again appear until the summer of 1898. At this time the abdomen was much larger and her condition was not so favorable. Operation, myomectomy, July 25, 1898. Seven-inch abdominal incision. Adhesions to omentum and bowels, the large intestine closely incircling the tumor like a wreath. In separating them, raw surfaces were left in many places on the gut and some of these could not be properly covered. Tumor, a pedunculated soft myoma, springing from the fundus uteri. Pedicle (half-inch in diameter) ligated with silk and cut off smooth. Weight of tumor $9\frac{1}{2}$ pounds. Abdominal cavity flushed and closed as in previous case. Patient stood the operation well, but developed persistent tympanites early and died on the third day, as far as could be seen, from sepsis. No flaw in the technique was discovered and it is probably right to suppose that the intestinal paresis and injury to the

serous coat predisposed to the septic condition. Since August I have successfully performed hysterectomy by the supra-vaginal method in three more cases of uterine fibroid.

2. *Enlarged Cystic Ovary*.—Mrs. Ada S., age 21, married six years, 3 children. Puerperal fever after last child birth 2 years previous. Menses always painful and at times irregular. Hysterical. Left ovary enlarged, right apparently normal. Operation, August 16, 1897. Curettage and packing first. Abdomen opened by a two-inch incision; left ovary (large and cystic) and tube removed. Wound closed by *en masse* silk-worm gut sutures with cat gut on fascia. This woman made a good recovery, with no untoward features. She gained flesh rapidly and has no more "nervous spells."

3. *Ovarian Cyst*.—Mrs. C., age 57, widow, several children. Referred by Dr. A. W. Goodwin. Though a fleshy woman, she had noticed the enlargement of her abdomen for a long time and said it was increasing. Circumference at umbilicus 52 inches; fluctuation distinct, with dullness anteriorly and resonance in flanks. Patient presented the typical *facies ovariana*. Ovariectomy, April 28, 1898. Six-inch incision. Cyst densely adherent to anterior abdominal wall, and was freed with difficulty. Trocar inserted, a large quantity of gelatinous fluid evacuated and the pedicle which sprung from the right side, ligated with strong silk. The atrophied left ovary was not disturbed. Abdomen irrigated and closed with silk worm gut sutures. Convalescence complicated in second week by an intra-mural abscess. Otherwise normal. This patient is now well.

4. *Extra-uterine Pregnancy*.—(a) Emma D., mulatto, age 19, married 2 years; 2 children, last one a year and a half before. Menses ceased for 3 months and then had a flooding spell in October, 1896. Since then has had irregular bleeding and has been in bed most of the time. Suffers intensely with pain in the lower part of the abdomen. In the left side was found a mass which presented all the characteristics of a pelvic hematocle. Vaginal section, May 4, 1897. Incision with scissors into Douglas' cut-de-sac; evacuated a large cyst, with clots and placental debris. Another smaller cyst removed entire from left broad ligament along with portion of tube. Irrigated with salt solution and packed with strips of gauze. Recovery rapid and uneventful.

(b) Elvira G., mulatto, age 29, married, 2 children, younger 3 years old. Irregular and painful menstruation since. After missing menses for four months they came on suddenly with pain, and, being in the country, no physician was summoned, but the patient was put to bed in a fainting condition. Her family thought she was having a miscarriage and that it would soon terminate safely. Instead of that she became worse; the pain did not cease, the bleeding continued and she got weaker. When I saw her two weeks later she had some fever and a rapid pulse, and was very anæmic and emaciated. There was a tender, elastic mass in her left side, pushing the uterus over to the right. A diagnosis of ectopic pregnancy was made and the patient taken to the St. Agnes Hospital at once, where an abdominal section

was performed as soon as she could be prepared. Operation, June 22, 1898. Five-inch incision. Sac was rather higher up than is usual. It was adherent to omentum, intestines and uterus and resembled a fibroid or a normally pregnant womb. Incised and hard clots and placental tissue shelled out; no signs of a fetus. Very little hemorrhage. Irrigated freely. Sac could not be safely removed. It was, accordingly, stitched to the abdominal walls and drained with gauze. Patient convalesced satisfactorily, went home in good condition and has since remained so.

5. *Appendicitis*. Mr. F. H. B., age 39; home in New Hampshire spending winter at Southern Pines, N. C. Was sent South for "throat trouble." Two weeks before I was called to see him, the attack began with severe pain and was followed by the usual symptoms of appendicitis. After a slight improvement, he was gradually getting worse, and was having fever and sweats. In the right iliac region was a prominent swelling, which was extremely tender to pressure and markedly fluctuating. Patient brought in Pullman car to Rex Hospital and operation performed January 29, 1898. Incision over mass caused a pint of offensive pus to gush out. Sac found; fortunately, to be adherent to abdominal parietes and walled off from peritoneal cavity. Sloughed ends of appendix discovered in the pus; its base formed part of the limiting wall and was, therefore, allowed to remain. Cavity of abscess washed with salt solution and gauze drain introduced. Good reaction, a comfortable convalescence and satisfactory union of wound. The patient has written several times since of his complete restoration to his usual health and freedom from any symptoms referable to the appendix. In November 1898, I operated successfully in the same way upon another case of appendicitis with abscess, referred to me by Dr. S. P. Holding, of Wake Forest.

Malarial Haemoglobinuria—Its Treatment by Injection of Normal Salt Solution.*

BY HENRY W. LEWIS, M. D., Jackson, N. C.

IT is not within the scope of this paper to treat the subject of malarial hæmoglobinuria *in extenso*, either as to its history or causation; nor do I intend to notice the many drugs, and treatments advised by various authors. My object is to give you a faithful clinical picture, and to present my views and convictions as to what I consider a rational and fairly successful method of combating this disease, as seen on the bottom land of the Roanoke river in North Carolina. It is hoped that this paper, imperfect as it is, may bring out a full discussion of the subject by the gentlemen here present.

The symptom to which the name malarial hæmoglobinuria is applied, is of the deepest interest, not only on account of the grave prognosis in all

*Read before the Seaboard Medical Society of North Carolina and Virginia at Wilson N. C., January 12th, 1899.

cases which present it, but also because the ætiology of the disease in which it occurs is imperfectly understood and its treatment a subject on which medical men differ. The term malarial hæmaturia, some times used to designate this disease signifies bloody urine, and is misleading, as there is little if any blood in the urine, the black or red color of which is due to the presence of blood-pigment. In this paper I shall use the name malarial hæmoglobinuria, as it more truthfully indicates the real substance that colors the urine in this disease; I shall also refer to it as yellow chill, a name given it in my country by the laity.

It is now of frequent occurrence in the intensely malarious districts of the South and was recognized in Northampton County, North Carolina, about forty years ago, but it was very uncommon until about the year 1870, and was confined to the inhabitants of certain very malarious sections, those living near the Roanoke river being most liable, while the denizens of the high lands, or piney woods country, seemed exempt from hæmoglobinuria, yet subject to all other manifestations of malaria. Of late, the disease has invaded the piney woods section, and all the physicians on the river, from Weldon down, see more or less of it. Some have had a large number of cases, my friend Dr. Bolton, of Rich Square, having had one hundred and seventy-five cases to occur in his practice since 1885, while his predecessor, at Rich Square, had only about sixty cases in forty years. I attribute the increase to cutting down the timber.

The mortality with us in this disease was formerly about fifty per cent. but I am happy to say it is smaller now. Dr. Bolton, who is very successful in its treatment, sustained in his hundred and seventy-five cases, a death rate of twenty-two per cent. In my own cases, sixty-nine in number, (those seen in consultation not counted), I find the mortality prior to 1890 about forty per cent., from that time until January 1897, about twenty per cent.; since then I have treated sixteen cases without a death. The more rational use of quinine, and a better understanding of the treatment of this disease, as well as the fact that mild cases are more frequent than in the past are, I think, responsible for the lowered mortality.

Much has been written in the journals concerning this disease, and many papers presented to the various medical societies of the South, some of them showing evidence of original research and investigation, yet its causation remains a matter of conjecture, its treatment a matter of dispute. Those who are experienced in the treatment of this disease may be divided into the quinine and anti-quinine advocates. A certain number of those administering the drug in this disease consider it curative, the majority, however, are of the opinion that its only action is to destroy the malarial parasite, and thus prevent the patient from having another chill. The anti-quinine men seem to be in the majority, and are of one mind. They think quinine harmful, and contend that it keeps up, even produces hæmoglobinuria and helps to kill the patient. It should be noticed that there has been some evolution, in regard to the use of quinine in this disease, even among its advocates, as medium

or anti-periodic doses administered hypodermatically are mostly in vogue, whereas massive doses by the mouth, often repeated, were formerly used. The large doses were beyond question harmful, and perhaps responsible for many fatal cases. I recall a case seen in 1880, treated by a most intelligent physician, where the patient, unable to retain anything by the stomach, was narcotized with hypodemics of morphia and a ten grain dose of quinine, almost forced down his throat every four hours; this was the first case I ever saw, and I was much impressed with what I considered its over treatment.

Quinine at the present day is the subject of much criticism, when used in malarial hæmoglobinuria. No less an authority than the distinguished Doctor Robert Koch, of Berlin, has given publicity to the opinion, that it causes the black water fever of South Africa, and many authorities abroad hold that it frequently produces hæmoglobinuria. In 1892 Dr. H. A. Hare, of Philadelphia, endeavored to bring out the opinion of southern physicians regarding the use of quinine in this disease, by sending out a question circular to six hundred of them. He received one hundred and fifty-five replies to this circular. Only fifty-four of those replying were deemed experienced in the treatment of this disease, and of these 19 thought quinine useful, or curative, while 28 considered it harmful, or productive of hæmoglobinuria. From this data, Dr. Hare prepared an able paper published in the *Therapeutic Gazette*, of July, 1892. Dr. Otis F. Manson, of Richmond, Va., in a valuable and exhaustive historical paper, written by request of the Virginia Medical Society, in 1886, containing clinical cases (reported mostly from foreign sources), concluded that the disease was due to the *Bilharzia Haematobia*. Dr. Julian Baker, of Tarboro, N. C., presented a paper to The State Medical Society, of North Carolina, in 1887, reporting a number of cases, with results of an autopsy, in which sections of liver and spleen showed bacilli similar to the bacillus of anthrax. Dr. Heitzman, of New York, also examined sections from this case, and corroborated Dr. Baker as to this bacillus. He (Heitzman) found in the sections of liver, sent by Baker, the portal vessels full of blood, but no corpuscles were recognizable. In the capillaries and connective tissue were found peculiar wadlets of microbes, (as he expresses it), similar to those seen in splenic cattle, only more slender. The kidney he found to be in a state of croupous hæmorrhagic inflammation, with the blood disorganized as in the liver. Dr. Heitzman says, as quoted by Dr. Baker, "there is no reasonable doubt in my mind that the disease is caused by some microbe, nearly identical with that of splenic fever in cattle." Dr. Baker concluded that the disease was caused by a mixed infection of the bacillus anthracis and bacillus malarie (variety not mentioned). He was awarded the Pitman Prize for this paper by The North Carolina State Medical Society.

Neither the conclusions of Manson nor the observations of Baker and Heitzman have been corroborated by others.

In 1897 Dr. William Sidney Thayer, of The Johns Hopkins Medical College, published a book entitled "Lectures on the Malarial Fevers," a scien-

tific work based upon a study of all the malarial parasites to date, and treats fully of malarial fevers; this book is doubtless familiar to all of you. He says: "Malarial hæmoglobinuria occurs, probably, only in æstivo autumnal infections." (Infection with the hæmatozoon falciparum.—*Welch*.) He also says: "We cannot attribute the hæmoglobinuria to the action of this parasite alone, but must seek the explanation of its occurrence in the existence of some condition, which will render the uninfected red blood-corpuscles, unusually vulnerable, possibly some change in the blood serum." He further says: "It is probable that degenerative changes in certain of the internal organs, the liver and the kidneys in particular, may play an important role in connection with the development of the hæmoglobinuric paroxysm, in addition there must be some exciting cause—a cause which will vary under different circumstances."

I agree with Dr. Thayer as to the æstivo autumnal parasites being present in this disease, which is evidenced by the irregularity of the malarial paroxysms. The condition which allows such extensive blood disintegration, remains a matter of theory. As to the exciting cause, we know that a chill, or perhaps several chills in rapid succession precede the attack, the objective symptoms of which, are those of malarial fever, plus jaundice and black urine. Dr. Thayer's book is most valuable, and throws much light on the whole subject of malaria. I do not think, however, that malarial hæmoglobinuria, has been sufficiently studied in this country by those properly trained to draw correct conclusions from blood examinations and post-mortems. It is yet almost a *terra incognita*, and full of promise to the explorer.

In my experience, a continuous residence of from six months to two years in an intensely malarious district, with frequent malarial attacks, is necessary to produce the condition in which we have hæmoglobinuria. These patients present the appearance of chronic malarial poisoning, are the victims of aching backs, enlarged spleens and swollen livers. They generally belong to the poorer class, those who are poorly clad and fed, those who drink surface water and bad whiskey, are the most liable.

Prodromic symptoms are often present; the most constant are frequent or irregular chills, dull pains over the region of the kidney, abdominal tenderness, colicky pains, occasional nausea, with pale and slightly yellow skin. No prodromes may be present and the subject, when taken, may be about his usual work and present the appearance of moderate health. The onset may be sudden. I have had patients to consult me at my office, for ordinary intermittent fever, and in a few hours be taken with a chill and hæmoglobinuria. It is rare in the negro race, but they are not immune, as I have met with four negro cases in my own practice, and have knowledge of others. Hæmoglobinuria is most common in the Fall and Winter months, occurring mostly in males, those from 10 to 45 years of age being most liable.

As prophylactics, quinine in moderate doses, nitro-muriatic acid, arsenic, strychnina, and iron, are the drugs which have served me best. Persons living in localities where this disease is endemic, should wear warm clothing,

boil their drinking water or use water from deeply driven, or artesian wells, avoid exposure and intemperance, use mosquito nets, and if possible, sleep in the upper story of their houses. If every malarial attack was properly treated, if good water and proper food were always obtainable, malarial hæmoglobinuria would be rare.

The prognosis should be guarded, and will depend somewhat upon the number of previous attacks, the amount of cachexia present, the intensity of the jaundice and the quantity and color of the urine. It is to be remembered that what seems a mild case at first, may in 12 or 14 hours be a most serious one. Should a second chill occur, a mild attack will merge into a severe one. Some subjects are stricken down, and die before the physician can reach them. Such cases are fortunately rare. The urine is generally passed during, or soon after the chill, in considerable quantity, but there may be suppression, partial, or complete from the first. I have had one case, where the urine was passed only once after the chill, the patient dying on the third day. The appearance of the urine is characteristic of the disease. When seen by reflection, it is almost black; when examined by refraction, it is a dark claret color; its specific gravity varies with the amount passed, but is usually above normal, it is acid and highly albuminous; and on standing a reddish brown deposit is found. Jaundice is always present in greater or lesser degree, and its intensity is a fair index of the severity of the attack. It makes its appearance in from 3 to 12 hours after the chill and in some cases the skin is so deeply colored as to present a dark, almost bronze hue. These cases are usually malignant. Nausea is present, except in very mild cases, and is one of the most rebellious, and distressing symptoms. The vomited matters are yellow at first, later they become green, in bad cases black, and may be mixed with much mucous, and sometimes a little fluid or clotted blood. In my cases the bowels have generally been constipated; the tongue may be clean or coated; it speedily becomes stained with the vomited bile; the temperature ranges from 102° F. to 105° F. or 106° F., the pulse is quick and feeble; the pupils dilated; the expression anxious; the patient restless.

The duration of an attack of this disease, may be placed at from one to six days. In a mild case the urine will commence to clear in from 24 to 48 hours, the temperature will fall, the stomach becomes retentive, the jaundice fades and the patient enters upon convalescence but there will be in most cases, some fever for a week or ten days, which quinine will not control.

I suppose it is due to some remaining toxæmia, or perhaps to nephritis, which I believe to be present in all of these cases. In severe cases and those having a second or third chill, there will be an aggravation of all the symptoms, the urine remains black, and becomes scanty; it may be retained, or suppressed; the jaundice deepens, the patient retains nothing by the mouth; the tongue is brown and parched; the vomited matter black; the abdomen becomes sunken or tympanitic; the pulse more feeble; the temperature higher; there may be stupor or intense restlessness, and the outlook will seem most desperate.

Some of these bad cases will recover, unless there be suppression of the urine, or uncontrollable vomiting. In the case of suppression, the patient will die in coma or convulsions; if the vomiting does not cease the patient will die from exhaustion.

Is it necessary to give quinine in this disease? Referring back to the article of Dr. Hare, already mentioned, you will see he notes only 19, out of 54 experienced physicians who favored quinine. *I go with the minority*, I give it. There are cases which doubtless get well without it. I know there are many which get well with it. I shall not trust my cases without this drug, until it is *practically demonstrated*, that the malarial parasite is self-destroying in this disease—(a theory advanced by Thayer and others). I wish it understood however, that I advocate medium or antiperiodic doses of quinine, given only with the hyperdermic syringe, such doses as experience has shown me to be sufficient to prevent another paroxysm.

I do not deny that this drug will produce hæmoglobinuria, there are many such cases on record, yet in a practice of 20 years I have not observed it. One well known fact should be borne in mind in the treatment of this disease, viz: one attack will render the subject more susceptible to another, and if he has a chill within a month of his "yellow chill," he will probably have hæmoglobinuria.

As I have before stated, the malarial paroxysms in this disease are irregular, no one can tell when they will recur, I have frequently seen them recur in 12 hours—indeed my patients in the past, before I resorted to the hyperdermic use of quinine, sometimes insisted on having the second, or third chill, in spite of the drug given by the mouth. I desire to make clear this point, that quinine should never be given by the mouth until the stomach is retentive and the urine clear.

Allow me to go a little further into this question. Thayer says, in describing the treatment of this disease, "if the parasite has disappeared, either as a result of the paroxysm itself, or of doses of quinine already given, it may be as well to abstain, at least for a time, from the administration of the drug." How are we to inform ourselves upon this point? Only by blood examinations, which country physicians are rarely competent to make. Suppose they could make them; does not Dr. Thayer again state that in *this disease* we are dealing with the æstivo autumnal parasite? He says of them, "not infrequently they are very scanty, and every now and then you may hunt for a long time without finding any organism;" so we *find ourselves on the horns of a dilemma*. Shall we wait and see if another chill occurs, which experience has taught us will jeopardize the life of our patient, or shall we give quinine—(which in proper dose has never been proven to act unfavorably in this disease)? I think there can be but one answer to this question.

As to the parasite disappearing as a result of the *paroxysm itself*, the following case will illustrate how unsafe it is to rely on that theory.

C. N., male, age thirty-six, farmer, well developed, seen Oct, 21, 1898, at 8 a. m.; chill at 12 o'clock preceding night; had been having irregular chills for a month, had taken quinine, but none within the last week; did not know he had a yellow chill until he saw the black urine in vessel, where he passed it in the night; says he cannot take quinine, as it always gives him urticaria, and bloody urine; refuses to allow me to inject it under his skin; mother says it also gives her urticaria. This patient had hæmoglobinuria when a child; he passed some black urine during my visit; temperature 102° F., pulse 95; skin slightly jaundiced but moist; tongue clean; bowels constipated, has vomited twice. No quinine was given, but other treatment to be described later—was instituted.

Same day, 6 p. m.: Patient had another chill at 1 p. m.; now very sick, temperature 104° F.; pulse very quick; urine black and scanty; skin dry and very yellow; vomits green bile; is restless and anxious; willing now to take quinine, which was injected under the skin (10 grs. of the bimuriate) and repeated the following morning. No other chill occurred and he made a good recovery, the urine clearing on the third day; he received four hypodermics of quinine, one each day, and it did not produce urticaria. I will leave the discussion of quinine and get down to the practical use of it. In this disease I invariably give a hypodermic dose of it, as soon as the patient is seen, no matter how much he claims to have taken, or what idiosyncrasy he thinks himself heir to, I am impelled to do this, by the fact that the statements of patients are unreliable as to the amounts taken, besides I do not believe quinine effective in this disease, when given by the mouth. I use the bimuriate, the adult dose being grs. viij-x, repeated every 24 hours. The solution is freshly prepared at the bed side, the syringe boiled, and site of injection disinfected.

These injections give some pain, and there is some local irritation following their use. One practical point is to inject them deeply into the subcutaneous tissue, after which the punctured skin should be covered with gauze or absorbent cotton, wet in camphorated spirits. I give quinine in this way to both children and adults, the dose for the former being reduced according to the age of the patient. It is repeated in 24 hours, if possible two hours before the expected chill. Given in this way it has, in my cases, prevented another chill.

Having given the antidote for the parasite, I endeavor at the same time to quiet the patient. Restlessness and anxiety will, in nearly all of these cases, furnish an indication for a sedative, and I meet this with morphia, which is given with the quinine, to an adult gr. $\frac{1}{4}$, with gr. 1-150 of atropia. Children receive it in the same way, in proportion to age. I am not content with the initial dose; it is left with the nurse, and directions given, to repeat it every six or eight hours, in order to keep the patient gently under its influence. I regard these continued doses of morphia as very important, and they are kept up until the patient begins to improve.

The beneficial action of opium in malaria generally, and in this disease especially, has not received the attention it deserves. It helps to prevent another chill; it induces rest and comfort; it serves to ward off the *great* danger ahead, uræmia, and it is the best thing for the nausea.

Attention is now directed towards the toxæmia, which is producing hæmoglobinuria. For the treatment of this, no remedy in my experience is comparable, to the subcutaneous or high rectal injection of normal salt solution.

The utility of this measure is now so well established in various affections, *particularly* in hæmorrhage, that I need not enlarge upon it here. In this disease, while there is no true hæmorrhage, the blood is being disintegrated within the patient's veins, and its vital elements set free or destroyed thereby producing toxins, so we have all the effects of hæmorrhage, plus toxæmia.

For the last two years I have been giving my "yellow chill" patients high rectal injections of hot normal salt solution, repeated every four or six hours, and continued until convalescence is established. I administer the first one myself. The quantity used is from a half to one and a half pints. A fountain syringe with large soft catheter attached is employed, and is left with the nurse who is taught how to use it. These rectal injections do good and are generally retained, but should the case prove malignant, or if suppression of urine, collapse, or uræmia threaten, resort is had at once, to the subcutaneous method.

I will give a case, which I think furnishes some evidence of the value of normal salt solution in this disease. This case occurred at Faison's old Mill, about $4\frac{1}{2}$ miles from Jackson, a locality of some interest because it is the favored spot of yellow chills. I have treated 24 cases within a radius of $2\frac{1}{2}$ miles of this place, ten of them in the house where this patient, the son of the miller resided.

Case seen October 28th, 1897, at 8 a. m., S. J. male, age 13 years; third attack; last one in 1895; has been having irregular chills, two within the last twenty-four hours, last chill at 4 o'clock this morning. Passed black urine, about a half pint at 5 o'clock. Temperature, 103.5; pulse, 110; skin dry and deeply tinged; tongue coated; bowels constipated; has had colicky pains in the abdomen; nausea in the mornings; complains of severe pain in his back and loins. Spleen very large and area of liver dullness increased; is very restless and anxious. Quinine bimuriate gr. vjss, morphia gr. $\frac{1}{8}$ with atropia gr. 1-200 was injected into arm, 6 grs. of calomel and 12 grs. of sodium bicarbonate, divided into 12 powders, were given one every hour dry on the tongue, a teaspoonful of phosphate of soda to be given in cup of hot water every four hours. Rectum cleansed with large enema, and one pint of hot saline solution injected high up. This was retained, these injections to be repeated every 4 hours. Five tablets morphia $\frac{1}{8}$ gr. atropia 1-200 gr. were left, with directions to give one every six or eight hours, patient to drink freely of very hot water in which a little sodium bicarbonate

is dissolved. When he feels that he must vomit, mustard plaster over stomach and loins, to be followed with hot turpentine stupes; patient to have all the water he will drink, but no nourishment.

October 29th, 2 a. m. Patient delirious, temperature $104\frac{1}{2}^{\circ}$, pulse very quick and feeble; tongue dry; skin dry and deeply jaundiced; vomits everything given; has had two large actions, (these occurred when the high saline injections were used); has passed no urine since my visit the day before. Catheter introduced and about $1\frac{1}{2}$ ounces of very black urine withdrawn. The skin of the submammary region was now shaved and disinfected. The normal salt solution (a teaspoonful of table salt to a pint of water;) boiled and strained was injected into the submammary tissue at a temperature of 105° F. The fountain syringe with small aspirator needle tied in the tube, subjected to boiling water, was used for the operation, my fever thermometer used to ascertain the temperature of the saline solution. The quantity injected was a little over a pint.

A high rectal injection of the saline solution was given and retained. Quinine bimuriate, gr. vjss, morphia, gr. $\frac{1}{8}$, injected under the skin of the arm, phosphate of soda continued every four hours, morphia and atropia tablets every six or eight hours, rectal injections of salt solution every four hours, water and lemonade to be given in as large quantities as he will take. Patient sponged with water and vinegar, and cold applied to head.

October 29th, 1 p. m.—Patient resting more quietly; has had about three hours sleep; stomach more retentive; likes the lemonade; two more movements of the bowels; retains the salt water injections; skin moist; no change in color; temperature 103° F.; pulse 100; tongue moist but still stained with bile; no passage of urine since my morning visit; catheter used and about a pint of black urine withdrawn.

We will not follow this case further. The patient recovered, his urine clearing on the fifth day; the subcutaneous injection of normal salt solution was not repeated; the rectal injections were continued until the seventh day. Dilute nitro muriatic acid in doses of eight drops every four hours in lemonade was substituted for the phosphate of soda, of which he had a night and morning dose to keep his bowels open. The morphia was not given after the fourth day; he was fed with egg albumen water and butter milk, until his stomach became quiet. He received five hypodermics of quinine in all.

This was evidently a case of threatened suppression of urine, and I believe it would have gone on to complete suppression, but for the use of the normal salt solution under the skin.

I will mention, in passing, the case of a mulatto woman, seen Nov. 20th, 1897. This was apparently a desperate case of pernicious fever, the woman being comatose and unable to swallow. A pint and one half of the salt solution was injected under the skin. Hypodermics of quinine and the high rectal infections were given; she recovered.

I have used the subcutaneous method only three times in hæmoglobinuria, and once in the case of pernicious fever mentioned above. These in-

jections are not recommended here as a specific in yellow chills, many cases of which I believe will die, whatever the treatment. I believe, however, that they meet the most important indication in this disease, namely the improvement of the blood itself; by their use the entire clinical picture is often changed, the temperature falls, the urine is passed in greater quantity, and clears more quickly, the bowels and skin act better, the jaundice fades sooner. They certainly seem *most beneficial* in this disease, the most dreaded and fatal of all malarial manifestations.

I am unable to explain how they act; it may be by diluting the toxic matters in the blood, and thereby, either directly or indirectly controll their production, or they may stimulate the engorged and inactive emunctories to increased and better action. May not the introduction of this solution have some effect on the malarial parasite, as well as on toxic matters in the blood?

I think the bowels should be moved in this disease, and for this purpose I use, as you have seen, small doses of calomel and soda, frequently repeated. Phosphate of soda is given at the same time, dissolved in very hot water. The latter is repeated every four hours, until the bowels act freely. The calomel is discontinued after ten or twelve doses. I think moderate catharsis is indicated, to remove the accumulated and vitiated bile, as there is polycholia in these cases. I have found that phosphate of soda and calomel overcome the constipating effect of the morphia I am in the habit of giving, and does not produce hypercathasis which should be avoided. After the bowels act nitro muriatic acid (dilute) is given in 5 to 10 drop doses, every 4 or 5 hours. It is more grateful to the patient when given in lemonade and is better retained by the stomach.

For the nausea, which is one of the prominent symptoms, no drug compares to morphia given hypodermically. Other measures, mustard plasters, effervescent drinks, carbonated cider, champagne, if obtainable, lemonade, brandy and cracked ice—in fact every resource at our command should be used to combat this most distressing and exhausting symptom. Large drinks of hot bicarbonate of soda solution do good—given when the patient *must* vomit, to wash out the stomach. I do not allow any nourishment for the first twenty-four hours as it is never digested, serving only to increase nausea. The patient usually has a distaste for food, but he will want water, and water is given, either hot or cold, as *much* as he will take. Butter milk, egg albumen water, and chicken broth, are given as nourishment after twenty-four hours, if the stomach can retain them; it is bad practice to worry these patients with food they will not retain; it is better to let them sip hot water and resort early to rectal feeding. This can be done by high enemas of hot peptonized milk, which are easily prepared and given, and may support the patient for some days, or until he can be nourished by the mouth. The patient should be kept in the recumbent position, and a bed pan obtained for his use. If collapse threatens, the salt solution should be used under the skin, and the physician stand by with hopodermics of ether, strychnia, and nitro glycerine, to combat it.

The temperature is controlled by cold sponging. I believe the coal tar preparations should be strictly avoided, also such drugs as ergot, gallic acid and elixir of vitriol, which are supposed to limit the action of the kidneys, and prevent hemorrhage, as in this disease diuretics, and not astringents, are indicated. A rule to be strictly observed is to keep all drugs, as far as possible, out of the patient's stomach until that viscus is quiet and retentive.

For the pain in the back and loins, mustard plasters frequently repeated, followed by hot turpentine stupes, seem to be effective. The stage of convalescence is an important one. These patients present the appearance of *profound* anæmia when the skin clears. They should be protected against another malarial attack, and I give them three or four grains of quinine, three times daily for two or three weeks. They are also put on some reconstructive tonic combined with arsenic, strychnia and iron. The hypophosphities of lime and soda, with these drugs, have served me well. Their drinking water should be boiled, they should wear warm clothes and avoid intemperance, exposure and fatigue. They should have the best and most nutritious food obtainable. Their bowels should be kept open, and for this purpose the phosphate of soda is given.

I will close this paper by giving a brief summary of the treatment—(as I understand it), of malarial hæmoglobinuria :

- (1.) Protect against another chill with quinine hypodermics, administered once every 24 hours, until urine clears and stomach is quiet. Give morphia with first dose of quinine, and keep patient gently under its influence until he improves.
- (2.) Give high rectal injections of normal salt solution, from the first. Repeat them every four or six hours, until convalescence is assured. Inject normal salt solution under the skin for threatened suppression of urine, uræmia or collapse.
- (3.) Move the bowels frequently with calomel and phosphate of soda. Avoid over-purgation ; give nitro hydrochloric acid after bowels act.
- (4.) Control temperature with cold sponging. Rely on morphia hypodermics for nausea, and persistent vomiting.
- (5.) Keep patient in recumbent position. Withhold all food for twenty-four hours—but give all the water, hot or cold, the patient will take.
- (6.) Nourish by the stomach after twenty-four hours if possible, if not by the rectum.
- (7.) Give quinine in small doses until complete convalescence. Put patient on blood tonics, see to the quality of his food, drinking water, and clothing.

Symphysiotomy and Pelvimetry.—Dr. S. Marx, before the New York Academy of Medicine, in discussing the operation of Symphysiotomy stated that he had never seen a case in which he thought this operation necessary. Some other method always seeming to offer the best chance for the patient. As regards Pelvimetry, his experience, more and more convinced him of its uncertainty and uselessness.

Some Thoughts on Hemorrhagic Malarial Fever.*

By THOS. N. WHITE, M. D., Belvidere, N. C.

THE object of this paper is not to give an exhaustive treatise on hemorrhagic malarial fever. It is my purpose to lay before you simply my views as to this disease, its cause and the most successful manner of treatment. The views I now hold, in regard to this disease are the result of my experience and observation in a practice of more than 16 years in a malarial region. The practical results obtained lead me to believe that I am at least on the right road. If, at any point, I am in error I am open to conviction, and am anxious to know the truth. Hemorrhagic malarial fever is simple, sub-acute or chronic malarial fever with most of the usual symptoms much intensified, complicated with hemorrhage and accompanied with jaundice, nervousness and great prostration. The diagnostic symptom of this disease is hæmaturia. Many have no hemorrhage except from the kidneys, others have hemorrhage from the nose, stomach, uterus and bowels, in addition to the hæmaturia while some cases of malarial fever occur with profuse hemorrhage from the nose, stomach, bowels and uterus but without the hæmaturia, differing from the hæmaturia cases only in degree as would be expected when the kidneys were not involved. To embrace all classes of this disease (for I believe all to be of the same origin), I consider the term hemorrhagic malarial fever to be more appropriate than the more popular title hæmaturia.

The hemorrhages are due to the *improper and prolonged administration of quinine* in a system unprepared to receive it. Quinine is an irritant to mucous membranes, also to the kidneys, and when given to a patient with a checked portal circulation it remains in the system exerting its irritant action, except that which is eliminated through the kidneys. This condition of affairs may be tolerated for a time without much harm resulting, but the longer it continues and the greater the quantity of quinine given the greater the irritation, until congestion follows the irritation and hemorrhage follows the congestion. I have never known of a case of hemorrhagic fever that did not follow a prolonged exposure to malarial influences, with repeated attacks of intermittent fever treated with quinine without the necessary adjuvants. I have one patient who invariably has hæmaturia after the ingestion of quinine, stop the quinine and she is quickly relieved. The fever in these cases is not always high. I recently saw a patient with this disease well marked, with intense nausea and great prostration whose temperature was at no time greater than 103°.

Hemorrhagic fever occurs more frequently in October, November and December. With proper treatment the majority of cases recover; but notwithstanding the best of care and treatment some will die. The doctor is never sure when he has one of these cases that will die, so the prognosis is

*Read before Seaboard Medical Society at Wilson, N. C., Jan. 12, 1899.

always doubtful. It runs its course quickly, as a rule within three or four days the patient is convalescing or has passed to the "beyond." All fatal cases I have seen have terminated within three days.

When called to a case I immediately give an hypodermic of morphia and sul. atropia to relieve the nausea, vomiting, restlessness and pain, and repeat the dose as often as may be found necessary to relieve the symptoms. I apply counter irritants over the stomach, liver and kidneys, give a full dose of calomel, (20 grains), followed by smaller doses at frequent intervals until there has been a free evacuation of the bowels. If this does not take place in 12 hours I give an enema, and if the hæmatura persists after 24 hours I repeat the 20 grain dose of calomel. This is given for its sedative effect upon the kidneys as well as to evacuate the bowels. I have never had to repeat this dose more than once before the urine cleared but would repeat the dose more than once if necessary to secure the desired result.

One and one-half hours after the first dose of calomel I give three grains nitrate of potassium well diluted, and repeat this every three hours until the urine clears when I substitute ten grains chlorate of potassium for the nitrate and continue this two or three days longer. As an antiperiodic I give one grain piperine, ten grains salicine and two drops Fowler's sol. arsenic, to be repeated every hour until the urine clears; then add two grains sul. quinine to each dose and repeat every three hours until clear of fever, when a good tonic of phosphoric acid, iron, quinine and strychnia is indicated to be continued until the patient is all right. Support the heart with strychnia, digitalis, hot bottles over the heart, etc., as the symptoms may suggest.

Give hot liquid or semi-liquid nourishment. Keep in warm room. Avoid drafts. When these directions are followed, no harm results from the large doses of calomel. Carelessness will cause pyalism.

During the first two years of my practice I considered the disease a pernicious malarial fever and treated it accordingly with large doses of quinine. All died. I then abandoned the quinine and had much better results. Four years ago I began the administration of calomel in large doses (20 grains) and have since then lost only one patient from hemorrhagic fever. This patient's urine was clear twelve hours after the first chill, but her general condition was bad. She was only semi-conscious. A few hours later she had the second chill followed by profuse hemorrhage and death almost immediately. I consider the large doses of calomel and the withholding the quinine until the partial circulation is open and the congestion of the kidneys is relieved, the main points in the treatment.

Recreation a Duty.—Never was good work done continuously without good rest. Strained organs are resentful; and this is particularly so with man's mind, for rest is the deep basis of this world's repair, and holds as good with a violet as with man's brain.

"Rest is not quitting the busy career;
Rest is the fitting of self to its sphere."

Hemorrhagic Fever and Its Treatment.*

By J. J. MANN, M. D., Nashville, N. C.

THIS is a severe form of malaria, and is characterized from the other forms of malarial fever by the extreme yellowishness of the skin and a flow of black or dark brown urine, which was at one time thought to be blood. This form of malarial fever is of very rare occurrence and is limited to low, marshy, swampy and exceedingly malarious districts, and all people, except negroes, residing in these districts, are subject to this dreadful disease. Children stand this disease according to age better than grown up people. Its mortality is exceedingly high in old age; from 85 to 95 per cent. Some few old people who are very strong may recover, but the majority die in a very short time; from twenty-four to forty-eight hours.

Etiology.—The etiology of this disease is very obscure, the great underlying cause having never been differentially demonstrated, but from the name one might come to the conclusion that malaria is the prime factor in the production of this disease, and this, I think, is true and it is recognized by the medical profession, save and except by one very able authority (Koch) who declares that this disease is caused by toxic doses of quinine. Malaria, I believe, is the great primary cause of the disease, but the disease, according to my opinion, is not due to the *direct* effects of malaria poison, but is the result of an accumulation of poisons which, owing to abnormal conditions in the parenchyma of the liver, are formed in its cells, and taken into the general circulation. This result is brought about by the depressing effects which the paroxysm or chill has on the vaso motor system causing a lowering of the blood pressure, which permits a flow of bile into the circulation, when its toxic properties (urea and cholestim) are accumulated in the blood, producing these grave symptoms, such as suppression of urine, excruciating headache, persistent sick stomach, weak and feeble pulse. All of these symptoms are a great deal more severe than they would be in the simple form of the disease, however continuous the simple form of the disease may be, showing beyond a doubt that there are other toxic agents at work.

We can understand this better if we take into consideration what Beaumetz has said in regard to the morbid poison which the economy produces during life, and the important part which the liver plays in such cases. Beaumetz says when the parenchyma of the liver is altered these toxic substances can accumulate in the blood and produce their deleterious effects. So far as the hemorrhages are concerned, they may be due to a change in the blood, to the long persistent state of malnutrition in chronic malarial cachexia, producing textural weakness in the coats of blood vessels and this at a point where passive congestion is greatest during the cold state.

Bemiss is of the opinion that the hemorrhages are not due to the malarious effects, but to some hemorrhage producing disease, and he says, "I do

*Read before Seaboard Medical Association at Wilson, June.

most earnestly assert that during a practice of almost half a century, nearly all of which has been passed in malarious localities, I have never once seen a malarial fever patient with a general hemorrhagic tendency if yellow fever and other hemorrhagic inducing diseases could be authoritatively excluded.

Symptoms.—The disease is invariably ushered in with a distinct chill followed by a rise of temperature varying from 102 to 106, a severe headache and flow of black or dark brown urine that looks like blood and water mixed, this flow is usually scanty, although at times it is very profuse. In a few hours the skin begins to assume a yellow tinge, and in twelve or fifteen hours it has become as yellow as saffron. As soon as the chill is over the patient is taken with sick stomach, and will vomit and retch for hours; sometimes for days and nights. This vomiting and rething, in some cases, is so severe that the patient is unable to retain anything at all, and continues until the patient dies from exhaustion.

Prognosis.—Prognosis of this disease is very unfavorable indeed; the mortality being from 85 to 95 per cent. However, some few recover, children standing this disease much better than grown up people. People over 55 never recover, and older ones stand less chance. There are some symptoms that seem to indicate a favorable prognosis, viz: an extreme yellow skin with a profuse flow of urine, on the other hand a pale yellow skin with little or no flow are grave symptoms. A suppression of the function of the kidneys twenty-four hours is a symptom that never fails to end in death.

Treatment.—This is a disease that needs but little treatment. My plan of treatment consists in the following:

Hydrarg. Chlor. Mit.	8 gr
Sodii Bicarb	20 gr
Ft in charts No. 4	

Sig: Take one powder every 1 or 2 hours until bowels act freely.

Pot. Bitart.	1 ½ oz
Aqua Pura	8 oz

Sig: Tablespoonful every 3 or 4 hours.

If patient continues very sick on stomach place half teaspoonful of sodii bicarb in glassful of warm water and give at once, and repeat this every few minutes until water is retained; or until you think you have cleansed the stomach sufficiently. If bowels do not act once or twice a day give calomel or some saline cathartic. If kidneys are inactive give hip baths and inject bowels full of water as warm as can be borne. Give digitalis, diuretine, put hot poultices over kidneys. Do not do anything to retard the action of the kidneys however active they may be, you need not fear any danger along this line. Just as soon as you get a free watery action from the bowels and the kidneys to acting well, give something to make new blood. Some authorities say not to give iron if there is any fever, but I disregard this and give it from beginning to end, if the kidneys are acting well. I always use the pyrophos of iron in this way.

Ferri Pyrophos	1 ½ drachm
Syr. Simplis	½ oz
Aqua	3 ½ oz

Sig: Teaspoonful every 3 hours.

The patient must be fed on very nutritious and easily digested food, such as egg-nog, milk, chicken essence and beef tea. If pulse becomes feeble give strychnine nit. 1-30 gr., every 3 or 4 hours with whiskey or wine. As to quinine I never use it until patient's urine has cleared up and fever and sick stomach have disappeared, then in only very small doses. This has been my rule of treatment and I only hope that it may prove as successful to you as it has proven to me. I have treated sixty-nine cases in this way with only one death.

Gynecological Axioms.—A Goelet (*Virg. Med. Semi-Monthly*, Vol. III, No. 9, p. 244) offers the following:

1. Never use a pessary, except as a temporary or auxiliary support. Alone, it is powerless to affect a cure.

2. Never permit a patient wearing a pessary to pass from under observation. Make her understand that it is a foreign body placed temporarily in the vagina, and that it requires watching.

3. Never think a pessary can do no harm as long as it is producing no discomfort. If retained too long it may do serious damage without the knowledge of the patient.

3. Never retain a pessary if it is producing the least discomfort. Remove it or readjust it without delay. It is a mistake to think the parts will become accustomed to its presence and the pressure.

5. Never fail to impress on the patient the importance of daily vaginal douches while wearing a pessary.

6. Never let the patient think a pessary will cure her. She will discover the truth some day and you will lose her as a patient.

7. Never insert a pessary immediately upon discovery of the malposition, but first prepare the parts for it by appropriate treatment.

8. Never use a sound or repositor for correcting the misplacement, or for making a diagnosis. It is unnecessary and dangerous. (Herein experience does not accord with that of the writer concerning the use of the repositor. The latter's action is upon an anteroposterior axis, similar to that of the uterus; its use is necessary in the replacement of the retroverted uterus, preliminary to the introduction of a pessary.) A retroverted uterus readily replaced by the finger alone is rarely in need of treatment, since it seldom gives rise to severe symptoms. The use of the sound, however, in endeavoring to replace a retroverted uterus is out of the question, since its action must be upon a lateral axis, and thus injury may readily be done.

9. Never introduce a pessary unless the uterus is freely movable and can be replaced by manipulation.

10. Never permit a patient to leave the consulting-room with a pessary that is producing the least discomfort. She should never be conscious of its presence.

11. Never be satisfied with a pessary unless it rectifies the malposition. If it does not accomplish this it is useless, and it may create some serious disturbance.

12. Never fail to seek the cause of the misplacement and endeavor to remove it. To lose sight of this means failure.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.

W. H. WAKEFIELD, M. D.

Editors and Proprietors.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.
J. HOWELL WAY, M. D., Waynesville, N. C.
J. ALLISON HODGES, M. D., Richmond, Va.
S. WESTRY BATTLE, M. D., Asheville, N. C.
GEO. G. THOMAS, M. D., Wilmington, N. C.

R. L. PAYNE, M. D., Norfolk, Va.
H. S. LOTT, M. D., Winston, N. C.
J. W. LONG, M. D., Salisbury, N. C.
H. A. ROYSTER, M. D., Raleigh, N. C.
ALBERT ANDERSON, M. D., Wilson, N. C.

J. P. MONROE, M. D., Davidson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

VACCINATION AS A PREVENTION OF SMALL POX.

It has been a long time since the medical press and the advocates of vaccination have been so active in the dissemination of the evidences in favor of this, in some respects, the most brilliant exploits of medical science.

We have learned to distrust statistics, particularly medical statistics, but surely no fact of modern science is so capable of mathematical and experimental demonstration as the discovery of Jenner.

It is a commentary upon human nature that upon the threshold of the twentieth century, after many years of successful employment, vaccination should again be put on trial, but the recent, much commented on action of the British government in the matter has aroused unprecedented interest. In any medical periodical one picks up he is confronted by an editorial, or an array of facts and figures sufficient, it would seem, to convince the most skeptical. Mr. Rider Haggard, the well-known novelist, has even written a book ("Doctor Thorne") portraying in a vivid manner the effect upon public health liable to result from neglect of the most certain prophylactic agent known to medicine. He has received the congratulations of the British Medical Association for his literary efforts in behalf of vaccination.

We believe that the agitation will end in ultimate good in educating the public to realize the necessity of protection, and particularly if it shall result in an improvement in the method of securing immunity. In this latter respect we have made but little advance since the time of Jenner.

MEDICAL PRACTICE LAWS.

Every now and again there is a protest against the requirements of the laws governing the practice of medicine in the various States. We regret to say that occasionally the kicker is a member of the profession. Such a protest has recently been made against the enactment of a law by the present Legislature of North Carolina, requiring that all applicants for license appearing before the State Board of Medical Examiners shall be graduates of a Medical College, having a compulsory course of three years. Heretofore the examination has been open to all—students as well as graduates.

The answer usually given to such objectors is that some regulation of medical practice is necessary for the protection of the public against grossly incompetent men. It is, moreover, the policy of the law to encourage and strengthen confidence in certain relationships, such for instance as that existing between attorney and client, or physician and patient. It is for this reason that the law does not allow a medical witness to divulge secrets confided to him in a professional capacity; the same is true of an attorney. In pursuance of this policy of fostering public confidence in the relationship existing between physician and patient, it can readily be seen that in restricting the right to practice medicine to those, who by educational and professional attainments are most fitted to maintain this high trust, the law has gone farther towards the attainment of its object.

It is a fact, however, that the regulation of medical practice is often regarded by the laity as operating chiefly for the advantage of the established physicians of the community. But the success of the really able medical man does not rest upon anything so slender as the medical practice law, and were all restrictions thrown aside and the ranks of the profession filled by the ignorant and incompetent, his superior abilities would be only the more conspicuous by comparison with the glaring deficiencies of his competitors.

A Pin in the Rectum for 30 Years.—Dr. Akers reports the following instructive case—instructive as showing the advisability of digital or ocular examination of the rectum in diseases of that region (*Lancet*, Sept. 10, 1898). The patient, a man of 58, applied to the author, complaining of severe pain in the rectum on sitting, constant calls to defecation, and great suffering during the act. The feces would come out in thin, long pieces, tinged with blood. The patient had been suffering that way, in a greater or lesser degree, during the last thirty years. He consulted many physicians, but nobody subjected him to a local examination; the treatment consisting in the ordering of morphine suppositories and other local applications. On digital examination the mucous membrane of the rectum at the level of the internal sphincter was found greatly thickened, and above the sphincter, in the right wall of the rectum could be felt the head and about half an inch of the body of a pin. Under the guidance of the finger the pin was caught by forceps and extracted. All the symptoms, which existed for nearly a third of a century, rapidly disappeared.—*Am. Med. and Surg. Bulletin*.

Contemporaneous Literature.

The Western Clinical Recorder, is a new semi-monthly journal, edited by Drs. Hodges and Rinehardt.

Merck's Archives of Materia Medica and its Uses, has superseded the *American Medico-Surgical Bulletin*. *Merck's Archives* proposes to deal chiefly with modern therapeutics and the latest additions to our medical resources.

Obstetrics, is a new monthly, published by the Van Publishing Co. of New York. As this is the only journal in the United States devoted exclusively to this special field of medicine, it should speedily make a place for itself in the profession. Dr. Edward A. Ayers, Professor of Obstetrics in the New York Polyclinic, is the editor, assisted by an advisory board made up of the teachers in obstetrics throughout the country.

The subscription price is \$2.00.

"*Dixie*," published by the Dixie Publishing Co. of Baltimore, and edited by Henry C. Hopkins, contains in the February number, the usual amount of interesting reading matter. "The Four Fears of our General," adopted from the French, by Adele Bacon; "Channoah," by Edward L. White; "Anna Evanoona," by Margaret S. Briscoe; "Eleva's Daughters," a continued story, by D. Ramon Ortega y Frias, are some of the striking features of the present number. The illustrations are particularly fine, and in this connection we call attention to "Here and There in Maryland," in eight illustrations of rural scenes in that State, by Edward G. McDowel.

"Do Physicians and Pharmacists Live on the Misfortune of Humanity" is the title of a contribution by Professor John Uri Lloyd, in April number of *The Coming Age*. This thought has ever concerned the reflective members of these two professions and a careful reading of Prof. Lloyd's paper will be profitable and entertaining. Copies can be obtained at 20 cents each, from the publishers. 506 Olive St., St. Louis, Mo.

The *Forum* for March contains an unusual list of interesting subjects, prominent among which are "The Future of Our Navy," by Capt. Taylor of the U. S. Battleship Indiana; "Is Our Army Degenerating," by Col. A. S. Bacon; "What Shall We Do With the Philippines?" by Hon. Chas. Denby, late U. S. Minister to China; "Cuba, A Lost Eden," by Dr. Felix L. Oswald; "The Negro and the African Colonization," by O. F. Cook. We have purposely left to be mentioned last a paper by Mark Twain, written in his inimitable style, entitled, "Diplomatic Pay and Clothes," in which he ridicules the absence of Court Dress of our Ambassadors abroad, which, unless our minister happens to have been in the army or navy, compels him to attend court functions, even at 7 o'clock in the morning in the same old swallow-tailed which is a night dress, as much so as a night shirt.

News and Items.

The annual births exceeded the annual deaths in New York during the past year by 12,775.

Dr. Robertson (*British Med. Jour.*) describes a tonsillar calculus expelled in a fit of coughing, which weighed close to an ounce.

Influenza-Bacilli in Telephone Receivers—Dr. E. J. Kaufman, of Manhattan, has examined chemically and microscopically the dust found in telephone-receivers and has found the bacilli of influenza in many cases.

Large Calculus per Urethram.—Possibly the largest oxalate stone on record extracted per urethram without injury (female) is illustrated in the *Munich Med. Woch.* of Dec. 20, 1898. It had grown on a "lyra climax" pencil eleven centimeters in length, and was five and a half long by nine in circumference; total weight over forty grams.—*Phila. Med. Jour.*

The Health of the Pope.—The newspaper correspondents in Rome are kept busy now cabling conflicting reports of the health of the Pope. Dr. Lapponi, the Pope's physician, is reported, however, as saying that the constitution of his Holiness is the strongest he has ever known, and predicts that the Pope will live to see the twentieth century.—*Medical Record.*

State Board of Medical Examiners.—Dr. M. J. Lewi, of New York; presented the report of this committee. It stated that of the 809 applicants before the board, representing the State society, 29.9 per cent. were refused. The rejections by topics were: anatomy, 55; physiology and hygiene, 41; chemistry, 67; surgery, 54; obstetrics, 62; pathology and diagnosis, 68; therapeutics, practice, and materia medica, 78.

Pelopathy is to be the next fad, according to the *New York Times*. A German clergyman has announced that as we were originally from dust the place to seek health is to seek it in mud. He orders his patients to roll in mud and leave it on as long as possible. "And do they do it? Of course they do—scores of them. And if the Pelopathist can keep his face straight for a few months he is going to be a rich man."—*Western Medical Review.*

A Symptom Anticipating the Effect of Chloroform Anæsthesia.—Dr. Lehmann (*Allg. med. Central-Zeitung*, 86, 1898) says that by means of his sign one can tell at the beginning of narcosis whether the anæsthesia will be an easy or a difficult one. In patients in whom the anæsthesia will be difficult, the eyelids remain open or half open from the beginning; if the lids are closed by the anæsthetizer, they at once reopen entirely or to half that extent. On the other hand, those patients who stand the chloroform well—in other words, those in whom anæsthesia is easy—will keep their eyes closed from the very beginning. Without attempting to enter into any explanation of this sign, Lehmann is so convinced of its value and efficacy, that in the presence of open eyelids during the beginning of chloroform anæsthesia, he at once prepares any necessary instruments before proceeding to the operation.

A Restraining Influence.—There is a case recorded in the *American Medical Compound* and copied in the *Medical Record* of a physician who had often tried to keep one of his gadding female patients at home, but always without success, until he came upon the plan of giving her a pill containing a small quantity of tellurium, which so affected her breath that she was unable to appear in public for a month. The poor patient never guessed the cause of her trouble.—*Ex.*

Sewer-Air and Diphtheria Bacilli.—The effect that sewer-air might have on the toxicity of the diphtheria bacillus has been ingeniously experimented upon by S. G. Shattock (*Jour. of Path. and Bact.*, Vol. V, 1898, p. 305) in the conjoint laboratories of the Royal College of Physicians (Lond.) and Surgeons (Eng.) The plan of the experiments was to grow lowly virulent varieties of diphtheria bacillus in sewer-air and afterwards to test their toxicity in the usual method of subcutaneous injection on guinea pigs. The air was supplied from an artificially made sewer, since it was found that the air in the London sewers was too pure. The results would seem to show that lowly virulent diphtheria bacilli, when cultivated in broth over which fecal air is passed, do not acquire toxic properties, even when the treatment be prolonged for a period of two months.—*J.*

The Dangers of the Long-Tube Nursing Bottle.—Dr. Ernest Wende, of Buffalo, proved by an instructive series of photomicrographs, coupled with bacteriological and chemical observations, that the long tubes of nursing-bottles, so long looked upon by physicians with suspicion, were really even worse than had been supposed. They were manufactured out of a very porous kind of rubber sheeting, and they were cemented at their longitudinal margins. The seams thus formed were found to be invariably imperfect, containing pits and sinuses which afforded excellent places for the lodgment of coagulated casein and for the breeding of bacteria. Of the many varieties of bacteria demonstrated to be present in nursing-tubes that had been in use, the lactic-acid bacillus predominated. The photomicrographs made it perfectly clear that it was impossible to cleanse such tubes.—*Med. Record.*

An Experiment in Ovarian Transplantation.—Dr. J. H. Glass, of Utica, under this caption, reported the case of a woman of thirty-nine years, who was in bad general condition following a double oöphorectomy, and upon whom he had performed the experiment. A young woman of seventeen needing the operation of oöphorectomy about this time, it was decided to transplant her ovary into the first patient. Both women were etherized, and then the healthy ovary was extirpated from the second woman and anchored fast in proper position in the first woman. Recovery was uneventful, and subsequently the patient in whom the ovary was placed somewhat reluctantly confessed that six days after the transplantation she had had an erotic dream, and ten days later had had a slight menstrual flow. At present, eight months after operation, she had entirely regained her mental and nutritive equilibrium.—*Med. Record.*

Women Doctors in England in Olden Times.—The *Westminster Gazette* quotes from the domestic state papers of the days of James I. a petition to the Privy Council emanating from one Thomas Briggs, himself the appointed medical officer to that august body, declaring that his profession did not afford him maintenance "because it was too much practiced by gentlewomen." Many a country practitioner of the present day could pen a similar petition with equal truth.—*Medical Press*.

Natural Labor.—Labor at the ninth calendar month in a woman free from organic and functional diseases of the heart, lungs, kidneys, brain, and other internal organs, and from all fever disease, and when there is no impediment in the material passages of either soft or hard nature to the descent of the child; when there is only one child in the womb; when the vertex of the child presents alone in either the first or the second occipito-anterior position; when labor is complete within twelve hours from its commencement; when a living child is born; when neither instrumental nor manual operations have been required: when the afterbirth comes away without the use of manual operation within twenty minutes after the birth of the child; when there is no laceration of any portion of the parturient structures; when the mother does not die within thirty-one days after confinement; and when there is no puerperal fever.—Dr. ROBERT R. RENTOUL, of Liverpool.

Fads and Fallacies of Rectal Surgery.—To the Manley operation for internal hemorrhoids, L. Straus (*Louisville Jour. Surg. and Med.*, July, 1898) makes the following objections: 1. Cocainization of the sphincters sufficient to make the operation painless, would endanger life. 2. Complete anal dilatation is necessary; if this were done efficiently serious shock would result unless a general anesthetic were given; this is especially the case in women. 3. Complete crushing of the tunics of the tumor is tedious, painful, and dangerous. Any procedure which requires the bringing about of a condition over which we have no control is unsurgical and unscientific. Outerbridge's operation for hemorrhoids receives the following criticisms: 1. For this operation, complete paralysis of the sphincters is required, complete divulsion should not be practised in all cases, certainly not in tubercular cases. 2. It is a long and bloody operation. 3. If union does not come by first intention, pus may form, and the result may be anything but satisfactory if not absolutely dangerous, because of the increased chances of sepsis. Should the suture give way the wound must heal by granulation over a large surface.—*Am. Med. Surg. Bulletin*.

Enormous Donation to the Jenner Institute of Preventive Medicine.—This institution, which until quite recently, was known as the British Institute of Preventive Medicine, received, two days before Christmas-day, the huge donation of £250,000 from Lord Iveagh. The circumstances under which Lord Iveagh's gift was made redound to his credit and also to that of the fortunate institution upon which his generosity has fallen.

His original determination was to hand over a very great sum of money to be spent in such directions as should appear to be of the greatest permanent benefit to the human race. The sum he fixed upon was half a million sterling, and after consideration and taking counsel with responsible advisers, he decided to devote £250,000 towards establishing sanitary buildings on a grand scale in one of the poorest quarters of his native city of Dublin—for Lord Iveagh is a scion of the Guinness family whose porter is famed from pole to pole—and £250,000 towards carrying on the "highest research work in bacteriology and other forms of biology bearing upon the causes, nature, prevention, and treatment of disease." The words we have quoted are those used by Lord Lister, Chairman of the Council of the Institute, in his grateful acknowledgement through the public press of Lord Iveagh's generosity. This generosity, in the opinion not only of medical men in England, but of enlightened men in every quarter of the globe, has been well directed. To provide the sinews of war with which to fight disease is to be the true benefactor of suffering man.

Infected Cigars.—It is stated in an American contemporary that the San Francisco Board of Health have discovered tubercle bacilli in the end of newly-manufactured cigars, and the explanation given of this is that many of the cigar makers are in the habit of moistening their fingers in the mouth preparatory to giving the final turn to the leaf at the end of the cigar. The allegation that by this repulsive habit the infection of tubercle could be conveyed is sufficiently important to demand attention. Apart, however, from this consideration, the idea that in the manufacture of cigars the polluted saliva of the operatives should be used, must come as an unpleasant revelation to most smokers. More information upon this subject is certainly desirable, both in the interests of the cigar manufacturers as well as of those who "take" their tobacco in this form. Despite the fact that the usual custom is to cut off the end of a cigar before smoking it, we nevertheless cannot see why, if the habit to which reference is here made prevails, it should be allowed to continue. A further disturbing feature is that tubercle is not the only malady which could be transmitted by infected saliva.—*Medical Press and Circular.*

Worthy of General Imitation.—The *Boston Medical and Surgical Journal* for January 26th, gives the following resolution which has been adopted by the Rochester Pathological Society: If any member be confronted with a suit at law for alleged malpractice, or similar charge, it shall be his duty to notify the Society. The president shall thereupon appoint a committee of three to investigate the merit of the action, to advise the member brought into litigation, and to recommend to the Society such measures as they consider should be taken.

Send us the names of two or three physicians to whom we may send sample copies; if you are pleased with the NORTH CAROLINA MEDICAL JOURNAL, drop them a card in our favor.

Book Reviews.

A Text-Book of Obstetrics.—By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania. With 653 Illustrations. Philadelphia: W. B. Saunders, 1898.

We have no hesitancy in commending this work to the student and practitioner of obstetrics. The author, so well known in his special line, is particularly fitted for the task he has undertaken, both from experience in private and hospital practice; while his training as a teacher has enabled him to give in a clear and comprehensive manner the salient points in the Science and Art of Obstetrics.

The subject is handled in a systematic fashion, each division being fully dealt with, and at the same time the text is condensed as far as is consistent with thoroughness. Part I. is devoted to Pregnancy, beginning with the anatomy of the Pelvis and ending with the Pathology of Pregnancy. Part II. The Physiology and Management of Labor and the Puerperium. Part III. The Mechanism of Labor. Part IV. The Pathology of Labor. Part V. Pathology of the Puerperium. Part VI. Obstetric Operation. Part VII. The New-Born Infant. The illustrations are abundant, and for the most part are made from original photographs and drawings.

An American Year-Book of Medicine and Surgery.—A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and Foreign authors and investigators. Collected and arranged, with critical editorial comments, by eminent American specialists and teachers, under the general editorial charge of George M. Gould, M. D. One handsome, imperial, octavo, volume of about 1200 pages. Uniform in style, size, and general make-up with the "American Text-Book" Series. Cloth, \$6.50 net; Half Morocco, \$7.50 net. Sold by Subscription. W. B. Saunders, Publisher.

As the editor remarks in his preface, the most notable change in the present Year-Book is the absence from the list of contributors of the name of Dr. William Pepper. As the best possible compensation for this loss, Dr. Stengel and Dr. Edsall have undertaken the difficult and important department of General Medicine.

The prodigious labor involved in getting out a volume of this character can hardly be appreciated by one not actually engaged in the work. The immense mass of medical literature appearing in the course of a year's time, would seem to make the task of separating the wheat from the chaff a herculean one. That this has been done and all the matter carefully edited and arranged, the present Year-Book is a proof. *The London Lancet* says that in many respects it is more useful than the famous 'Jahrbucher' of Germany."

Prevention of Sore Nipples.—Dr. J. Melton Mabbott, in the *New York Medical Journal* of September 10th, claims good results from the following method of treating the nipples: For about four weeks the nipples are carefully rubbed every night with lanolin. The nipple is gently but thoroughly massaged with each application. In the morning this is washed off with warm water and some variety of good white soap. A soft brush must be used, by which the soap is thoroughly worked into the skin. This practice has the effect of producing a full and well-raised nipple. Further, it renders the skin very resistant to the influence of moisture in causing fissures.—*Canadian Medical Review*.

Eye, Ear, Nose and Throat Department.

In charge of W. H. WAKEFIELD, M. D., Charlotte, N. C.

The Eye as a Causative Factor in Functional Nervous Diseases.

Abstract of a paper presented to the Tri-State Medical Society of the Carolinas and Virginia, at the meeting in Charlotte, '99, by W. H. Wakefield, M. D.

The author stated, as a self evident proposition, that functional nervous disorders are now of more frequent occurrence among American people than formerly, and in accounting for this increase he cites, as prominent among causes, the changed habits of our people from an out-door life with much exercise to confinement in-doors with but little exercise, the children of muscle works, even muscle workers themselves, having become brain workers; the tremendous development of manufacturing and other employments that confine millions of workers in-doors, and require close attention on the part of the eyes for several hours daily; the break-neck speed at which many people live, owing to their devotion to business or pleasure; the early and prolonged use of the eyes in school, etc.

In contrasting the conditions under which we now live with those of fifty or seventy-five years ago, he brings out the fact that our grand parents took life easier than we do and spent much time in out-door work and amusements. In explaining the evil effects of prolonged application at close work it was shown that when the eye is normal it readily performs its increased duty, but when it is faulty in refraction (astigmatic or hyperopic) the burdens of prolonged close work are often beyond its ability to bear without strain, owing to the perplexities which accompany the act of seeing at short range when astigmatism, hyperopic or muscular weakness is present. The author showed that the act of adjusting the eyes in order that small objects may be clearly seen at from twelve to eighteen inches is extremely complex, requiring the co-ordination of the eight recti and two ciliary muscles, and if this close range must be continued for many hours daily by eyes whose refraction or muscle balance is abnormal, the reserve nervous energy of the body is consumed and nervous phenomena, such as headache, migraine, neuralgia, etc., ensue.

Hyperopia, myopia, astigmatism and muscular insufficiency were discussed and the part each plays in causing perplexities of the visual act demonstrated. One point insisted upon by the author was: When patients who are chronic sufferers from headache, browache neuralgia and chorea are not relieved in a reasonable time by medical and hygienic treatment the condition of their refraction should be looked into by one competent to perform that duty, and in support of his position he reported a few cases, one of which is given below:

Mrs. T., age 34. From childhood suffered from headache on reading or sewing—three years previous had bought a pair of No. 40 glasses from a jew-

eler. For the past two years has suffered much from sick headache. She is extremely nervous and for six months has been quite feeble, with capricious appetite, constipated bowels and headache growing worse; passes sleepless nights and suffers from what one of the best physicians in the State terms nervous dyspepsia. *She cannot read or sew more than 10 minutes without inducing severe pains in eyes and head*; is so prostrated that she cannot attend church. Her eyes were brought under the influence of atropin and a high degree of Hyperopic Astigmatism was found. Proper glasses were prescribed and worn and the patient, without any medication, progressed rapidly to a condition of health and comfort, gaining twenty-five pounds in weight in three months. Three other cases were reported, illustrating other phases of asthenopia, and all were relieved by aiding the overworked eyes. In conclusion the author says: "The position taken is that the number of persons consulting physicians for relief from some functional nervous disorder from which they suffer has materially increased during the last twenty-five or thirty years, and in accounting for this increase the exacting near work of civilization is shown to be causative by reason of the heavy burdens which it places on the ocular apparatus. It has been shown that when this apparatus is normal these burdens cause no serious inconvenience, but when certain abnormalities are present it labors at a disadvantage and the burden becomes onerous, resulting in muscular and nervous exhaustion more or less profound. The plan of treatment advocated and set forth in the report of cases is in line with one of the first principles involved in the healing art, viz.: Remove the cause, failing in this, counteract its effects."

Chronic Suppurations of the Middle Ear.—E. Schmiegelow describes ninety-six cases he has operated and gives tabulated details, in the *Nordiskt Med. Arkiv*, 1898, No. 17. He has operated over three hundred in all. In twenty-three cases the affection had lasted eleven to twenty years; in seventeen, from one to five years, and in one case between forty and fifty years. The mastoid apophysis was alone opened in twenty cases; with fifty-five per cent. cured; in the rest the otitis was not arrested. The attic was opened in fourteen cases; seven were cured, three improved; one relapsed, and in two the result is unknown. In fifty-three cases the entire middle ear was opened and seventy per cent. cured. In seven cases the operation was not completed. In nine cases there was improvement; three cases died—miliary tuberculosis, or meningitis. The transverse sinus was opened once. In four cases the operation was followed by traumatic facial paralysis. He states that the patient must be prepared for the tediousness of the after-treatment. In one of his cases it required a year and a half; in several six to nine months, but the average limit was from two to four. In fifty-eight cases nothing could be learned as to the etiology. In ten, it commenced as an acute suppuration after influenza. In three, it was evidently a carious process due to the presence of adenoid vegetations. In four cases the suppuration was tuberculous. In two it was the result of whooping-cough, in eleven of scarlet fever, in two of measles, in five of

trauma, and in one case there was a carcinomatous growth. The hearing was unaltered after the complete operation in eight; more or less improved in twenty-seven.—*Journal of the American Medical Association*.

The Hygiene of the Ears.—*Cincinnati Lancet-Clinic*.—Bishop.—Few people over 50 or 60 years have normal hearing, and defective hearing is more common in males than in females. The author claims that one-third of all cases of deafness is due to scarlet fever, but this will not be found the case in the Carolinas. The statement that about one-fifth of all causes producing deafness are hereditary, and that diseases of the ear causing deafness are often the result of constitutional diathesis is borne out by the editors' experience.

One strong point made by the author is this: Troubles of the ear are too often neglected—left to unaided nature to heal. There is a point of time in the history of most cases of ear diseases where a cure can be effected.

Protargol in Ocular Therapeutics.—In a discussion upon some of the modern drugs before the Louisville Medico-Chirurgical Society (*American Therapist*, January 7, 1899), Dr. Wm. Cheatham stated that since resorting to the use of protargol in diseases of the eye, he had done away with the nitrate of silver almost entirely. He had used protargol in all forms of conjunctival inflammation, especially in conjunctivitis with purulent secretion. In ophthalmia neonatorum he had found it much superior to silver nitrate, and it produced much less irritation, did not stain the eye, and penetrated far more deeply. Dr. J. M. Ray has also observed that protargol has a decided beneficial influence upon the pus flow in ophthalmia neonatorum, and considered it a very valuable remedy in ordinary cases of conjunctivitis. Dr. S. G. Dabney expressed the opinion that protargol had come to stay. He believed that it would be an advantage to increase the strength of the solutions from 3 to 5 per cent. in eye diseases, and stated that it could be employed as strong as 10 per cent., or even stronger.

In a recent discussion before the section of Pediatrics of the New York Academy of Medicine, Dr. Edward S. Peck also reported some remarkably favorable effects from the use of protargol in purulent ophthalmia in infants. He thought that it might be advantageously substituted for nitrate of silver in the Crede method against ophthalmia neonatorum. He had put 10 per cent. solutions of protargol into his own eye, and had found it very much less irritating than a one-half of one per cent. solution of cocain. Dr. E. S. Thompson believed that it was as good a germicide as silver nitrate, and decidedly less irritating.

Physicians strive for hospital, dispensary and other public positions which bring them prominently before the profession as recognized authorities. They can gain a far wider and speedier recognition from the profession by *really good* work in a reputable medical journal.

Therapeutic Hints.

Liniment for Counter-Irritation in Chest-Affections.—

Vinegar Canthar, 2 fl. dr.

Spt. Camphor, 3 fl. oz.

Liniment for application to the chest at night,

—GUYON, *Medical News*.

Rheumatic Liniment.—

Tr. Camphor }
Tr. Opium } of each ½ fl. oz.
Spt. Ammonia }
Olive oil, 1 fl. oz.

Apply on the affected part.

—DUNGLISON.

Aphonia and Hoarseness.—

Potassium Bichromate, $\frac{1}{100}$ grn.

Take a dose this size every hour.

This remedy will be found speedily efficacious in hoarseness due to excessive action of the vocal cords or resulting from an acute cold.

—*Medical Standard*.

Catarrh of the Upper Air-Passages.—

Menthol, 4 parts.

Eucalyptol, 2.5 parts.

Terpinol, 2 parts.

Oil Pinus Sylvestris, 1 part.

A few drops are to be poured into a bottle and the latter heated over an alcohol lamp. The bottle will be immediately filled with balsamic vapors, which the patient is to inhale.

—KAFEMANN, *Phil. Med. Jour*.

For lumbago try 5 to 10 drops of tr. gelsemium every three or four hours, or a less quantity oftener. It is not a specific for this painful trouble, but comes nearer to being one than anything else.

—*Western Med. Review*.

Formula for Blaud's Pills as used in Pennsylvania Hospital.—

Mass of ferrous carbonate, 36 grains.

Potassium sulphate, 24 grains.

Potassium carbonate, 4 grains.

Powdered althea, 1 grain.

Powdered acacia, sufficient.

Make into 12 pills, and enclose in No. 4 gelatin capsules.

Irritable Bladder After Confinement.—

R Salol,

Tinct. hyoscyami, āā ʒ ij.

Infus. buchu, q. s. ad ʒ vi.

M. S. Tablespoonful three times a day.

DR. W. E. FOTHERGILL.

Headaches.—

R Sodii brom, ʒ i.

Phenacetin, gr. xxx.

Caffein, citrat, gr. xvij.

Sodii bicarb, ʒ i

M. et ft. chart. No. vi. S. One every fifteen minutes till relieved, to be followed by a Seidlitz powder.

—DR. M. STALLER.

Reading Notices.

OGDENSBURG, N. J.

THE HAMMOND TYPEWRITER CO.

NEW YORK,

GENTLEMEN:—More than three years ago I gave you the following testimonial: "I purchased one of your machines over five years ago, and have never regretted my choice. The machine has served me faithfully and well, performing an almost incredible amount of work, and notwithstanding its hard service is still doing as good writing as when new." And now, when the old machine is well into its ninth year of service, I can hardly say anything more in its praise. Last year it turned out twenty-six (26) complete novels, including my Chicago Record prize story—more than a million words of matter, to say nothing about correspondence. You can see for yourself the kind of writing it is still doing. If I were now to buy a new machine, it would be to enjoy the improvements and not because the old instrument had outlived its usefulness. For literary workers, the Hammond has no peer.

Very truly yours,

(Signed) J. C. COWDRICK.

NEW YORK, Feb. 19, 1899.

WM. R. WARNER & CO.,

DEAR SIR:—I write to congratulate you on your very remarkable facilities for business. The goods which I ordered from your Mr. Hillegass Saturday 8:30 A. M., were delivered 8:30 P. M., of the same day with bill. I doubt if this could be duplicated by any other firm in the country. With regret for your misfortune and best wishes for the future, I remain,

Truly yours,

J. S. READING.

The attention of the profession is called to the card of Messrs. Finger and Anthony, silversmiths. These gentlemen are prepared to replate old surgical instruments, and from personal experience we can testify to the fact that they do good work at reasonable charges.

Senna Leaves for Chronic Constipation.—SIR: Dr. Rockwell's remarks in the *Medical Record* of December 10, 1898, in regard to the apple diet as a treatment for chronic constipation, are both timely and true, as I can attest from my own personal experience. But there are cases that even the apple diet will not relieve; such cases I have met with, and doubtless the majority of physicians have. In such cases I recommend a very simple, inexpensive, not at all unpleasant, and with me very effective treatment, viz., the eating just before going to bed of a teaspoonful to a tablespoonful of senna leaves. The patient will soon learn the amount of leaves necessary for his individual case. A dozen leaves is quite sufficient for some, while others require several dozen. I have had this remedy give relief to cases of more than twenty years' standing, and I cannot now recall a case in which relief has not been afforded.

BARTON DOZIER, M. D.

If you see anything in this journal that you differ from, write us about it; if you see what exactly agrees with your views and experience, write about that also. Give us the benefit of your views. Send us reports of interesting cases.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIII.

CHARLOTTE, MARCH 20, 1899.

No. 6

Original Communications.

The Medical Treatment of Appendicitis, Or Appendicitis Without Operation.

By CHAS. B. McANALLY, Madison, N. C.

MY excuse for presenting this paper to you, is that my own experience does not always teach me that every case of appendicitis demands the treatment that now seems so universally popular, not only with surgeons, strictly speaking, but also with the profession generally—and I mean by that surgical interference.

During my few years of professional work it has been my good fortune to be confined largely to the practice of general medicine. Having this work both in town and country, you will readily understand the advantage such a situation is to the observation of any special disease or diseased conditions. We all, every day of our professional life see the vast difference of disease, even of its characteristics, as found in our patients in the various professions and environments of individual cases. My experience with appendicitis began almost in the very commencement of my practice ten or twelve years ago. But, with one or two exceptions, I have never been fully convinced of the necessity of an operation for its relief, and these exceptions were in cases receiving no medical treatment until there was extensive local peritonitis complicating the primary trouble. The history of five cases occurring in my practice and three in that of Dr. W. J. McAnally during the past eighteen months will be sufficient to demonstrate what has caused me to be perhaps over conservative as regards surgical treatment of these cases. I would not for a moment have you understand that I do not believe in operating for the cure of a great many of these cases, for I do know that there are cases that only this will offer any hope—even some of the cases that are relieved by medical treatment will, I doubt not ultimately demand the entire removal of the appendix and its surrounding irritating inflammatory products. Sept. 30th, 97, I was called to see (G. S.) a young man seventeen years of age, farmer. Good family, good history, etc. I found him in bed, lying on his right side, with his knees brought forward towards abdomen. Face rather pale and

somewhat drawn, with small red spot on cheeks, eyes bright and watchful, tongue large, white coated and pointed, brownish on back part. Breath very offensive. Complained of severe pain in right iliac region, sometimes radiating up beyond umbilicus, no appetite, not able to rest for three or four days prior to my visit, and gave following history: Five days before this, was in field pulling fodder when he noticed a slight heaviness in his lower right part of abdomen and felt disposed to take shorter steps with his right foot than with his left, and that it relieved him to lean forward and keep his body, as regarded his right leg, as nearly immovable, as possible, and in a slightly forward position. He finally came home and laid down for a few hours. Then got up and walked about a little, but all the time had that uneasy feeling in "lower right side." He passed two days this way, with only a little more pain, etc., until the third day, when he was compelled to take to his bed and had remained there. Suffering more and more each day. Bowels had moved during first two days one time each day and one time during the last three days and had eaten nothing since he first complained. I found his temperature 102, pulse 98. Extremely tender over the right iliac region, no distention of bowels, except skin just a little tense and full over the tender area, lying on his back, could lie flat, but would almost immediately flex his right leg on body, saying it gave him pain in his bowels or right side to straighten out.

I made diagnosis of appendicitis and prescribed and gave Calomel and Bi Carb. Soda, gr. xv each. M. Div. in 15 powders; one every half hour until all are given. This was at 4 p. m., and was to be followed early next morning with tablespoonful of Epsom salts. I also prescribed 30 drops Spts. Turpentine internally and stupes to bowels under warm applications of bran, meal or wood ashes. In case this did not relieve pain, I left $\frac{1}{2}$ doz. doses of $\frac{1}{4}$ gr. Sulph. Morph. to be given every hour until four were taken or relief given.

I saw him next day at 2 p. m. Found his general condition about the same, temperature 101, pulse 115, tenderness still severe, but had gotten a little sleep after taking two doses of morphia, bowels open freely, urine free, no appetite, a little increase of the tension over tender region. Former treatment repeated, except acetanilid and caffeine were given instead of morphia. Not being fully satisfied with his condition, I asked for a consultation, and next day at 4 p. m., I saw him with Dr. C. Patient was much better in almost every respect. Had had copious stools, rested well four hours and had asked for a little milk, tympanitic quality of bowels about same, temperature 101, pulse 110, pain very much relieved, tongue still heavily coated and breath foul. The doctor agreed with my diagnosis and recommended the treatment continued, which was done, except only enough of the purgative was given to keep bowels freely open. Patient made an uninterrupted recovery, and within two weeks was able to be out at his usual work. He has had no unpleasant symptoms from it since.

Case No. 2 was T. W., a school boy, 12 years old, gave the following history: Was playing at school when he noticed that he was inclined to

bend forwards towards his right side when he was running. As he went home in the evening he found himself able to walk all right, but was a little sore in the lower right side of bowels. This was Friday. Saturday and Sunday he felt irritable, without appetite, a general feeling of drowsiness with slight pain in the lower right side of bowels and up above his navel, and spent his time lying about. All these symptoms increased until I saw him on the Thursday following. He had not been back to school, I found him lying on his back, with right leg flexed unable to lie any other way with comfort—very tender over right iliac region, very considerable tympanitis, but no tenderness at any other point, pulse 102, temperature $102\frac{1}{2}$, bowels constipated, very thirsty, no appetite, not able to sleep. Same treatment as in former case, except acetanilid and caffeine given with the morphia and turpentine every 4 hours. Saw him next day, found temperature 102, pulse 110, stools 5, since I saw him the same time the day before. Treatment was continued 24 hours, when I found him much better, but with considerable tenderness over the region of the appendix. The mercury and soda were continued in half quantity, which was deemed sufficient to keep bowels free 3 or 4 times a day. Only liquid food allowed in any case, and at end of 10 days patient was up, but carried himself a little stiff with the muscles of right side for a week or two more. In this case I am confident that there were adhesions of some extent as upon close examination there were tenderness and some fullness over the region of first tenderness. But no further trouble has come to him and if there was an unopened abscess it has not so far given trouble.

Third case, young man 26 years of age, family history good, personal history good. Was taken on 18th December, 1898, with severe pain in bowels. He thought he had "cramp colic." Took a big dose of whiskey, got some relief for a few hours, but still had cramping pains in lower right side of bowels. This continued 3 days, when he sent for me. I found him suffering intensely with pain over right side of bowels low down even below the region of appendix. I suspected strangulative hernia from his immediate condition, but on close examination, I found tenderness of the iliac region, no appearance of any scrotal hernia and no tenderness of the cord. The muscles were held so tense I could not satisfactorily distinguish any tumor. This patient had been very sick at stomach, but was somewhat relieved of that before I saw him. Found temperature 100, pulse 108, deeply coated tongue, breath very offensive, bowels constipated. I at once gave calomel and soda as in previous cases, and had an enema of hot water, castor oil and turpentine given at once, with directions to repeat every 2 hours, until free evacuation of bowels was secured. Also gave morphia and acetanilid, four $\frac{1}{4}$ gr. doses of morphia to be given once each hour until relieved of pain. Acetanilid given in 5 gr. doses every 2 hours for 3 doses, then to be given every 4 hours. Saw him next day, found him well purged, water free, temperature 99, pulse 90, diet was regulated, and treatment continued, but modified as symptoms were relieved, 7 days after patient was up and has suffered no relapse. The other

cases were similar except the pain in the beginning was higher up and was only localized at appendix after first 24 hours. Treatment was same and all recovered.

The following three cases were reported to me by Dr. W. J. McNally, as above stated.

Case 1. Mrs. C., age twenty-nine, was taken with severe pain in right iliac region, January 24, 1898, fever, headache, anorexia and constipation followed the occurrence of pain, through abdomen, and on the 25th, I was called to see her. Found the patient lying on her back with right leg drawn up and the abdominal muscles especially of the right side were very rigid. There was marked tenderness over McBurny's point, and pulse was 104, temperature 102.5, tongue coated and no desire for food. I prescribed $\frac{3}{4}$ ss. Epsom salts at once, turpentine sutps over the tender point, and 1 gr. doses of a powder, 70 parts acetanilide, 20 Bicarb. Sod, 10 Cit. Caff., every 3 to 4 hours with $\frac{1}{8}$ gr. of morphia as often as necessary to keep patient easy. Grains v. of Quin. Sul. tid., and allowed no solid food, gave milk in small quantities every 2 to 4 hours, albumen water and egg-nog were taken several times a day. With this treatment the patient was kept easy and fever was never above 103. The Epsom salts was given every evening and one to two movements from the bowels secured each day. The patient vomited several times during the attack, but I thought perhaps the morphia caused it. At no time during the sickness could I detect a tumor, but on the 7th day about one ounce of pus was passed with the morning evacuation. There was no more fever and all symptoms gradually subsided except the tenderness over McBurny's point. The patient was up doing her work in another week from the time the pus was passed, but she was weak and pale. The tenderness never did entirely leave and about six weeks after the first attack she had a second one but much less severe than the former. The same treatment brought her out again in 3 or 4 days. Tenderness all subsided after this and she has had no more trouble. Gude's Pepto Mangan was given to build her up.

Case 2, Mrs. M., aged 42, on the 9th of June, 1898, was taken with severe pain in the right iliac region. The same day I was called to see her, found her temperature 101, and pulse 99, much soreness in region of appendix, abdominal muscles on right side were tense, tongue coated. Diagnosis, appendicitis, gave about same treatment as for case 1. Fever did not get over 102. And in six days she was up and going about the house. She had some soreness about the appendix for several weeks, and was anemic. Gave Tr. Ferri. Chlor. mx. to xv. doses tid and she soon improved and has since had no trouble.

Case 3, Mrs. D. I. C. During the second week of August, 1898, complained of pain and soreness in the right iliac region, but as she had given birth to a ten pound boy the 20th of July, she thought this soreness was the result of the labor. On the 10th of August, I was called to see her, temperature was 103, pulse 108, tongue was coated and it was easy to feel a tumor in region of appendix. Patient was of course in bed and had been there two

days when I first saw her. The abdominal walls were tense on the right side and the right knee was drawn up. Diagnosed appendicitis and followed the same plan of treatment as used in cases 1 and 2. The morphia kept the patient tolerably comfortable and the Epson Salts moved the bowels nicely each day. The feeding was the same as for the other cases, and with this simple treatment she got along nicely. On the 16th she passed several ounces of pus, for three days after this a little pus was seen with each passage. All the symptoms except the soreness disappeared almost immediately. As late as November 10th, she would feel sore in her right side after walk of a half-mile.

The advocates of operative intervention in all cases of appendicitis, advise early operation, some have even gone so far as to say that it must be done within the first 24 hours. I have no hesitancy in saying that to follow this rule absolutely, there would be no operations, as in 95 per cent. of the cases we see, we are not called until the third or fourth day. We may sometimes be called earlier, when the attack is preceded or ushered in by those sympathetic pains above the umbilicus or over the region of the sympathetic ganglion. These are the cases of colic we often meet. Prof. Nothag, of, Vienna, one of the leading clinical observers and teachers of the world, declares that more than 80 per cent. of all cases of appendicitis will recover under medical treatment. He, however, like the late Prof. A. L. Loomis, advises the opium treatment, and not the combination treatment I have mentioned and used. My experience has been so satisfactory with my own treatment that I shall hesitate to depart from it, until at least I meet with such reverses as shall justify the change. I wish to say just here, that I think perhaps after the initial treatment with the mercurial, almost any of the various evacuants would answer in its stead. I have seen thalion (a laxative salt of lithia) highly recommended in similar conditions, but have never used it myself.

The Care of the Sick and Wounded in the War of the Revolution.*

BY FRANCIS R. PACKARD, PHILADELPHIA, PA.

Late Assistant Surgeon 2nd Penn. Vol. Inf.

At the outbreak of hostilities between Great Britain and the Colonists the latter possessed no regularly organized army and of course had no system for the care of such of their number as might be wounded or become sick, but there was no lack of voluntary medical aid and surgical assistance rendered by the profession to the earlier sufferers in their country's cause. The medical profession not only lent its professional skill but it also actively aided the Revolutionists by acting in the councils of the Colonists, serving as political agitators, and acting upon the vigilance committees which were so extensively organized. It was due to the vigilance of Dr. Joseph Warren, who was President of the Provincial Congress of Massachusetts that the

*An address delivered before the Judson Daland Med. Society, January 8th, 1899.

knowledge that the British troops intended to march on Concord, was obtained, and it was by Dr. Prescott, Brigadier General of the Colonial Militia of that colony that the information was conveyed to the inhabitants.

Toner (*Medical Men of the Revolution*) mentions the names of nine physicians who furnished succor to those wounded in the fights of April 19, 1775, viz; Dr. William Aspinwall, John Brooks, John Cuning, William Dexter, Eliphalet Downer, Timothy Minot, Oliver Prescott, Joseph Warren, and Thomas Welch. Almost all of these men were of high professional standing. Doctor Aspinwall is said to have acquired more skill and celebrity in the treatment of smallpox than any other physician of his time in New England.

In the time before the discovery of vaccination when the custom was to inoculate for smallpox, he had the reputation of having performed the operation more often than anyone else. He had a private hospital for that purpose in Brookline, Massachusetts. Thatcher (2) says, "He continued in the successful treatment of this disease [by this method] till the general introduction of vaccine inoculation. He had made ample accommodation for enlarged practice, and established what might have been justly deemed a sure foundation for prosperity, when vaccine inoculation was first introduced. He well knew that if vaccination possessed the virtues ascribed to it, his schemes of fortune and usefulness arising from inoculation at his hospital, were ruined, that he should be involved in loss and his anticipations of fortune would be blasted. But as an honest man and faithful physician, he deemed it his duty to inquire into the efficacy of the novel institute. With the utmost alacrity, therefore, he gave the experiment a fair trial, promptly acknowledged its efficacy, and relinquished his own establishment."

John Brooks was a fellow-student of the famous Count Rumford, under the celebrated Dr. Simon Tufts, Jr. He was engaged in the practice of his profession in the town of Reading, Massachusetts at the outbreak of the Revolution, but he abandoned it and joined the Revolutionary army as a captain, and when the war closed had attained the rank of colonel. He resumed his medical pursuits in Medford, Massachusetts, but continued to take an active part in public life, ultimately becoming Governor of the State.

Doctor John Cumming was a colonel in the colonial militia and a member of the Provincial Congress, but it is sad to record that he was possessed of such a faint heart that, owing to their lack of military resources, he became convinced the colonists would not succeed in throwing off the yoke of Great Britain, and consequently he resigned his positions and retired into private life soon after the conflict began.

However this course does not seem to have prevented his subsequently acquiring a very large practice and leading a highly successful professional life.

(2 *American Medical Biography*.)

Dr. Joseph Warren was the famous patriot who was afterwards slain at the battle of Bunker Hill and whose death was justly mourned as one of the greatest losses that could have befallen the infant nation.

Dr. Oliver Prescott, Jr., was extremely active in advancing the patriot cause from an early date. He was a member of the Provincial Congress of Massachusetts and became a major-general of the militia of the colony.

Eliphalet Downer practiced medicine in Roxbury, Massachusetts, he became a regimental surgeon in the Continental army, and subsequently was surgeon to the cutter "Dolphin."

Dr. Thomas Welch graduated from Harvard in 1772 and was later surgeon to the 27th Continental regiment.

Dr. William Ward continued in the Continental Army, first as a surgeon's mate, in which capacity he served at Bunker Hill, afterwards as surgeon.

Dr. Timothy Minot graduated at Harvard in class of 1747. He practiced medicine in Concord, Massachusetts, and was highly successful.

The American soldiers who were wounded in the battle of Bunker Hill were removed to the northern and western sides of the hill, where they were attended to by the surgeons accompanying the army. Frothingham (3) mentions the following surgeons as attached to regiments engaged in that action, namely: David Jones, Surgeon of Colonel Samuel Gerrish's Massachusetts Regiment; Obadiah Williams, Surgeon of Col. John Stack's New Hampshire Regiment; Ezra Green, Surgeon of Colonel James Reed's Regiment; Thomas Kittredge, Surgeon of Colonel James Frye's Regiment. Lieutenant-Colonel Bricket, of Colonel Frye's Regiment, was a physician and seems to have served in a medical, rather than a military capacity throughout the engagement. The following names are also mentioned as aiding in giving relief to the wounded, viz. William Eustis, Walter Hastings Thomas Welch, Isaac Foster, David Townsend and John Hart.

After the battle and subsequently to the various fights about Boston the wounded were removed to houses, which were converted into temporary hospitals, in Charleston, Watertown, Roxbury and Cambridge. In Edward Warren's, *Life of John Warren*, there is a letter from the latter to John Hancock, in which he writes that four houses had been appropriated in Cambridge and were named respectively, Washington, Putnam, Lee and the Convalescent hospital. They were occupied by about three-hundred and fifty patients, and there were also three houses in Roxbury which were being utilized in a similar manner.

It became necessary later in the history of the camp about Boston to provide a special hospital for the accommodation of a number of small pox patients, that disease having appeared among the soldiers. On June 27, 1775 the Provincial Congress of Massachusetts ordered such a hospital to be opened. It was of course of prime importance that the manner of appointment of medical officers and the establishment of hospitals should be systematized and provided for at an early date. The Provincial Congress of Massachusetts on

(3 *Siege of Boston.*)

June 19th, 1775, took the matter in hand and appointed Doctors Church, Taylor and Whiting a committee to "consider what method is proper to be taken to supply the hospitals with surgeons," and also to report on the necessary equipment for the establishment of hospitals for the troops.

On the 22nd of June, three days later, the commanding officers of the Massachusetts regiments were ordered to present to this committee the names of the medical men who were desirous of serving as surgeons or surgeon's mates in their respective commands, and to cause these gentlemen to present themselves before the committee for examination as to their qualifications for the positions.

James Thacher (Military Journal) has left us an interesting account of the manner in which he received his first appointment in the medical department of the Revolutionary army. In 1775 he had just completed his medical studies under Doctor Hersey, of Barnstable, Massachusetts, and he solicited an appointment in the hospital at Cambridge. A medical board consisting of Doctors Holton and Taylor had been appointed to examine the candidates, and on the day fixed for that purpose he appeared before them. "On the day appointed the medical candidates, sixteen in number, were summoned before the board for examination. This business occupied about four hours; the subjects were anatomy, physiology, surgery, and medicine. It was not long after that I was happily relieved from suspense, by receiving the sanction and acceptance of the board, with some acceptable instructions relative to the faithful discharge of duty, and the humane treatment of those soldiers who may have the misfortune to require my assistance. Six of our number were privately rejected as being found unqualified. The examination was in a considerable degree close and severe, which occasioned not a little agitation in our ranks. But it was on another occasion, as I am told, that a candidate under examination was agitated into a state of perspiration, and being required to describe the mode of treatment in rheumatism, among other remedies he would promote a sweat, and being asked how he would effect this with his patient, after some hesitation he replied, "I would have him examined by a medical committee."

All which tend to show us that the examinations were sufficiently rigorous in character to maintain a high standard in the medical corps of the Massachusetts troops. In the other colonies however medical appointments seem to have been made in a most haphazard manner, without any regular system whatever. I transcribe a curious petition to the Provincial Congress of New York, for a medical position. There were many similar to this presented and in a great number of instances the applicant seems to have been appointed solely on the strength of his petition:

"John Hammell to the Provincial Congress, Gentlemen: Having served an apprenticeship of seven years to Englebard Kemmena, practitioner of physic and surgeon of the city of New York; in which capacity being desirous of joining the forces now raising in this Province for the maintenance of our rights and privileges, beg leave to lay myself before the Honorable

House for Its approbation a Recommendation of my character, and abilities, which desirous to support, I have here enclosed, wishing to have the honour of being your humble servant.

JOHN HAMMELL.

New York, Tuesday afternoon, 4th July, 1775.

"John Hammell, of the city of New York, having studied Physick and Surgery by me with the strictest attention full seven years, during which time he hath conducted himself with the greatest honesty, and sobriety, and convinced of his being capable of practising, do commend him to any person that may occasion assistance of the faculty. ENGLEBART KEMMENA.

New York, July 3rd, 1775.

It was not until September, 1776 that Congress made an effort to fix medical appointments on a uniform basis throughout the entire continental army. On September 30, 1776 Congress, "recommended to the legislature of the United States to appoint gentlemen in their respective States skilful in physics and surgery, to examine those who offer to serve as surgeons, as surgeon's mates in the army or navy; and that no surgeon or mate shall hereafter receive a commission or warrant to act as such in the army or navy who shall not produce a certificate from some one of the examiners so as to be appointed, to prove that he is qualified to execute the office. That all regimental surgeons and mates, as well as those of the hospital, be subject to the direction and control of the directors in the several departments."

General Washington always manifested the greatest solicitude that the medical department of the army should be kept upon the highest plane of efficiency. Soon after joining the army engaged in the siege of Boston he made a personal visit of inspection to all the hospitals that had been established in the camp and the neighboring towns, and in a letter dated September 24th, 1776, he writes, "No less attention should be paid to the choice of surgeons than other officers of the army. They should undergo a regular examination, and if not appointed by the Director General and surgeons of the hospital, they ought to be subordinate to and governed by his directions."

Thacher relates the following incident, which well illustrates the anxiety of the people for the welfare of such of their defenders as might be ill or wounded, and also how acutely sensitive the commander-in-chief was upon the same point. "I am sorry to have occasion to notice in my journal the following occurrence: The body of a soldier has been taken from his grave for the purpose, probably of dissection, and the empty coffin left exposed. This affair occasions considerable excitement among our people; both resentment and grief are manifested; as it seems to impress the idea that a soldier's body is held in no estimation after death. Such a practice, if continued, might be attended with serious consequences, as it affects our soldiers. Much inquiry has been made, but without success, for the discovery of the persons concerned; and the practice in future is strictly prohibited by the commander-in-chief."

The Provincial Congress of Massachusetts, as we have seen, took the matter of the organization of the medical department in hand at an early

date, and the records of the Congress contain many resolutions in regard to it. No other colony seems to have attached the same degree of importance to this intricate subject. In most other instances the medical care of the soldiers seems to have been regarded as a subsidary matter and it was not until the Congress of the United States took up the subject and promulgated a set of uniform regulations for the medical service that in many States any organization at all had been effected.

On June 28, 1775, the Provincial Congress of Massachusetts voted "that there shall be two surgeons and two mates appointed for each hospital and commissioned accordingly." The pay of the surgeons was fixed at eight pounds a month, and each mate was to receive four pounds ten shillings a month.

On June 28, 1775, the following was adopted as the form of commission for surgeons in the Massachusetts troops:

"The Congress of the Massachusetts Bay. To A. B. Greeling:—Being informed of your skill in surgery, and reposing special trust and confidence in your ability and good conduct, we do by these presents constitute and appoint you, the said A. B., to be surgeon of the regiment on foot, whereof _____ is Colonel, raised by the Congress aforesaid, for the defense of said Colony. You are, therefore, carefully and diligently to discharge the duty of a surgeon to the said regiment, in all things appearing thereunto, observing such orders and instructions as you shall from time to time receive from the colonel of said regiment, according to military rules and discipline established by said Congress, or any of your superior officers, for which this shall be your sufficient warrant."

On July 17th, 1775 Congress appointed a Committee consisting of Mr. Paine, of Massachusetts, Mr. Lewis, of New York, and Mr. Middleton, of South Carolina, to report on the most suitable plan for the organization of the General Hospital service of the Continental army.

On July 27th, 1775 Congress passed the following resolution:

Resolved, that for the establishment of an Hospital for an army, consisting of 20,000 men, the following officers and other attendants be appointed, with the following allowance and pay:

A Director-General and Chief Physician, his pay four dollars per day.

Four Surgeons per day, each one and a third dollars.

One Apothecary, one and a third dollars.

Twenty Mates, each per day, two thirds dollar.

One Clerk, two thirds dollar.

Two storekeepers, each four dollars per month.

One nurse to every ten sick, one fifteenth of a dollar per day, or two dollars per month.

Labourers occasionally.

That the appointment of the four surgeons and the apothecary be left to the Director-General and Chief Physician. That the mates be appointed by the Surgeons, and that the number do not exceed twenty; and that the

number be not kept on constant pay, unless the sick and wounded should be so numerous as to require the attendance of twenty, and to be dismissed as circumstances will admit; for which purpose the pay is fixed by the day, that they may only receive pay for actual service. That the Clerk, Storekeepers, and Nurses be appointed by the Director.

Doctor Benjamin Church, of Boston, one of the best known physicians in New England, was appointed the first Director General and Chief Physician of the army. Apparently the choice could not have fallen upon one more fitted to properly perform the functions of the office. He had graduated from Harvard in 1754, and besides his professional reputation he was well known as a wit and the author of some poetical effusions of no mean merit. He had always loudly espoused the Whig cause and stood in very great esteem as an ardent patriot. Within a few months after his appointment, however, he was detected in a treasonable correspondence with the enemy. In October, 1775, he was tried by a general court martial over which General Washington himself presided. Thacher says that the evidence upon which his conviction was based rested upon an intercepted letter to a friend in Boston, which was written in cipher; "and when deciphered and examined, its contents seemed in a considerable degree to justify the plea which he had made, that it was designed as an innocent stratagem to deceive and draw from the enemy some information for the benefit of the public." Many respectable and intelligent persons held that his guilt was never established. However, the court martial found him guilty. He was placed in prison, but in the following year obtained permission to go to the West Indies. Nothing was ever heard of the ship in which he sailed from the time she left port and it was supposed that she foundered at sea and was lost with all on board.

He was succeeded as Director General and Chief Physician by Doctor John Morgan, one of the most famous men of his time. Dr. Morgan was a native of Philadelphia and one of the first graduates of the College of Philadelphia, from which institution he received his degree in arts in 1757. He served a term of six years as apprentice to Doctor John Redman and at the conclusion of that period served for four years as a military surgeon with the Pennsylvania troops against the French. He went to Europe in 1760, and received the degree of Doctor of Medicine from the University of Edinburgh in 1763. He continued his studies in various cities on the Continent and did not return to his native city until 1765. He was one of the founders of the medical department of the University of Pennsylvania, and likewise of the American Philosophical Society.

Dr. Morgan received his appointment in October, 1775 and at once joined the army engaged in various operations in the immediate neighborhood of Boston. From the outset of his military career he resolutely set his face to combat the many evils which daily resulted to the sick and wounded from the lack of organization and the loose discipline which prevailed in the medical department. He required candidates for the last named branch of the service to pass rigid examinations and he exercised a vigilant supervision over the behaviour and work of the members of the corps.

There was much jealousy and disputation between the regimental surgeons and those attached to the general hospital service. It seemed best that all supplies to regimental medical officers should be dealt out from the general hospital stores and that the latter should thus be in some measure able to control the disposition to be made of the stores. This was resented by the regimental surgeons as infringing upon their rights. Another source of contention was found in the orders issued that the sick as far as possible should be transferred from the regimental hospital to the general hospital. The greatest difficulty confronting Doctor Morgan, however, was that of obtaining hospital supplies. The finances of the Continental Army were never in particularly fine condition; but during Doctor Morgan's career as chief of the medical department they were at a particularly low ebb. Bandages, lint and medicines were only to be had with the greatest difficulty, and that he got them at all seems to have been due to the energy and perseverance with which he nagged at Congress about the necessities of the sick. All these efforts of Doctor Morgan to ameliorate the sufferings of those who fell under his care rendered him extremely obnoxious to very many of the medical officers of the army, and a large party of interested persons who profited in one way or another from the previous disorderly condition of medical affairs. Much of the suffering arising from the lack of supplies was attributed to him by those anxious to screen their own delinquencies in not procuring them for the army. The northern department of the army was in charge of Doctor Stringer and had fallen into a disgraceful state of confusion from lack of discipline and from the ignorance of the most ordinary medical matters, displayed by the surgeons connected with it. This condition could not be justly be blamed upon Doctor Morgan, as he had repeatedly endeavored to rectify it without avail. Nevertheless much stock was made of the wretched state of things prevailing in the Northern department by his enemies, who said he was responsible for the whole matter. They succeeded in inducing Congress to slight Morgan in various ways, which caused him to complain frequently and bitterly to Washington. The latter seems to have been a steadfast and sincere friend of the doctor's from first to last in his many troubles. By Washington's permission he finally went to Philadelphia from Trenton, at which place the army was in temporary quarters, for the purpose of seeking an explanation of the various indignities and vexations which had been put upon him. Congress directed Samuel Adams to attend to his case and, and what was the doctor's indignation when Adams informed him that Congress attributed to him much of the suffering and distress undergone by the sick and wounded. Morgan demanded that he be introduced in Congress and allowed an opportunity to vindicate himself. This was refused, 'on the ground that the attention of that august body was fully occupied by more urgent matters. With the most admirable self control and magnanimous patriotism he returned to Trenton and determined to continue at his thankless task in the interest of his country without regard to the ingratitude of Congress. He was ordered by the latter to take charge of the sick on the eastern side of the Hudson

and at once obeyed without question. On February 1st, 1777 he sent a memorial to Washington, detailing the amount of work he had done, the plans he had formulated and desiring a court of inquiry on his conduct, but on January, 7th, 1777, just after Washington had received it, Congress dismissed him from the office of Director-General and Chief Physician of the Hospital, without vouchsafing any explanation as to why such action was found necessary.

From the moment of his discharge Doctor Morgan devoted himself to the task of obtaining an official vindication from the body which had so shamefully mistreated him. His patriotism was so great, however, that he sank his personal feelings in his love for his country and continued to aid in the work of the medical department. Doctor Norris ⁵ quotes the following letter of his to a friend, and I transcribe it fully as illustrating the doctor's greatness of soul in the midsts of his misfortunes.

"It is an act into which they were suddenly forced by a party whom political necessity obliged them to gratify. But such is my opinion of the integrity, and such my reliance on the honour of Congress, as to believe that when they are furnished with the materials for judging properly, they will be as ready to do me justice, as a part of them have been to listen to the malice and misrepresentations of my adversaries, and to show their magnanimity, by allowing that they have been capable of an error by their readiness to redress it. I have endeavoured to discharge my duty in what I undertook from principle, according to my degree of knowledge and capacity, with fidelity and diligence; and what I value more than knowledge or capacity alone, with humanity; from whence results the approbation of a good conscience which as my enemies, with all their power cannot give, so neither can they take away."

The physicians on the staff of the General Hospital, who were a distinctly superior class of men, joined in writing a sort of memorial for Doctor Morgan, in which they set forth how much he had accomplished during his term of office, and how unselfish he had been in his labors.

It was two years after his dismissal before he finally got a chance to vindicate his conduct. Congress then appointed a committee consisting of Mr. Drayton, of South Carolina, Mr. Harvey, of North Carolina, and Mr. Witherspoon, of New Jersey, to investigate Doctor Morgan's management of medical affairs.

⁵ Early History of Medicine in Phila.

(TO BE CONTINUED.)

Physicians strive for hospital, dispensary and other public positions which bring them prominently before the profession as recognized authorities. They can gain a far wider and speedier recognition from the profession by *really good* work in a reputable medical journal.

Protonuclein in General Practice.*

By G. W. SHERMAN, M. D., Detroit, Michigan.

[From The Physician and Surgeon.]

THE science of bacteriology teaches that pathogenic bacteria produce poisonous substances, ptomaines and toxins, as a result of their multiplication and growth, and that these poisons usually cause the illness and perhaps the death of our patient. It has also been demonstrated that most disease germs can inhabit the body of a susceptible animal for but a comparatively short time, causing either death or the establishment of an immunity which results in the eradication of the germ. The immunity thus established will continue through life in many diseases while in others it will disappear by the lapse of time. What the exact nature of this immunizing process is, has not as yet been definitely established, but the antitoxin theory seems to be the most feasible one.

The manufacturers of protonuclein try to explain the efficiency of this preparation on the nuclein and leucocyte theory, but, if immunity is established by the production of nuclein and a resulting leucocytosis, then it is difficult to understand why it is that immediately after immunity against one variety of germ has been established, another variety may invade the body and cause disease. It is a matter of common experience to find a child taken sick with measles after a recovery from scarlet fever, or to have the streptococcus or staphylococcus invade a patient who has fairly established an immunity against scarlet fever, diphtheria or some other infectious disease, causing inflammations and abscesses which are often as serious as the original disease. It appears to me that if leucocytes are instrumental in establishing an immunity against the germs which caused the first disease in these cases, they would be equally as potent in preventing a second invasion. It appears that the germs or their toxins play an important part in the production of these immunizing substances. Anyone who has given diphtheria antitoxin a fair trial in the treatment of diphtheria, can readily appreciate the plausibility of the antitoxin theory of immunity.

What the composition or nature of these immunizing substances is, and how or by what organs of the body they are produced, is still a matter of conjecture, but it is not unreasonable to suppose that the lymphatic, thymus, thyroid, splenic and similar glands have much to do with their production. If these glands have anything to do with establishing immunity against pathogenic bacteria, then it is just as reasonable to suppose that extracts from these glands will assist in curing disease, as that pepsin derived from the peptic glands will assist in digestion; and it is for the purpose of directing attention to this line of therapeutics that I wish to give my experience with protonuclein.

According to descriptive literature pertaining to protonuclein this preparation is obtained by a process of simple extraction from the thyroid and

*Read before the Detroit Medical and Library Association.

thymus glands, the pineal gland and pituitary body, bone marrow, pancreas, spleen, liver, salivary glands, Brunner's glands, Lieberkuhn's follicles, peptic glands, and lymphatic structures derived from young animals. That the preparation is not a single compound, nuclein or protonuclein as its name implies, but a mixture of substances derived from the various structures from which it is obtained, is shown by the fact that it will digest albumens and starch; which the extracts from the peptic, salivary and pancreatic glands will account for. That thyroid extracts have a therapeutic value is quite well established, and that this preparation contains such extracts is apparent. If the extracts, derived from the other structures from which this preparation is made, have effects as varied as those obtained from peptic, salivary, pancreatic and thyroid extracts, it is apparent that in protonuclein we have decidedly a "shotgun" dose, and my experience with it has been that the shots which miss the mark inflict no injury. If gland extracts assist in establishing an immunity when given to persons afflicted with infectious disease, the fact will bear demonstration by practical experience at the bedside, and thinking that my experience with protonuclein may tend to promote clinical study, I will report a few cases, supplemented by some general statements, for your consideration.

My first practical experience with protonuclein was on myself. About two and a half years ago I was taken with a severe attack of acute catarrhal inflammation of the nasal mucous membrane which rapidly extended down the trachea into the bronchi. It began on a Friday morning with an almost incessant sneezing accompanied by blocking of the nose, fullness in the head and headache, followed later in the day by a thin, copious discharge from the nose, and an irritating cough. By 5 o'clock P. M. the same day my headache was severe, my limbs all ached, and on taking my temperature it registered 101°. I had had similar attacks before, none apparently quite so severe, which always run a course of from one to three weeks. I had tried quinine and other remedies without any appreciable benefit, and was a willing subject to try something new. I had a few samples of protonuclein and began to take them *ad libitum*, starting about 5 o'clock in the evening. By Saturday morning I felt some better and continued taking the preparation through all that day, still *ad libitum*, and by evening, twenty-four hours after I began its use, felt considerably improved. I continued taking more during Sunday, when my nose cleared up, and the headache, fever, cough, and soreness in my limbs disappeared. By Monday evening, after three days' treatment, I was practically well and attended a meeting of the Detroit Medical and Library Association. Since then I have always prescribed protonuclein in these acute catarrhal affections with the same happy result. Experience has taught me that the proper dose for such cases, in the adult, is from six to twelve grains repeated every two or three hours. The treatment should be continued with smaller doses for a few days after the disease has disappeared to prevent a relapse.

I have found protonuclein especially useful in the treatment of broncho-pneumonia in infants and children. In these cases I usually give from two to four grains, according to age, repeated every two to three hours, and find that a recovery takes place in from three to five days. I have had remarkable success in treating pneumonia with this preparation and will briefly report two cases.

Case I.—My mother, aged seventy-two years, on April 8, 1897, suffered a severe chill about 9 o'clock in the evening. Two hours later when I first saw her she complained of pain in the right side; was coughing up bloody mucus, and was very uneasy. Her heart had been irregular for some years but now the pulse was 130 and her temperature 102° . Physical examination revealed pneumonia of the right lung. I prescribed two grains of phenacetin and six grains of protonuclein to be repeated every two hours. By 10 o'clock the next day her temperature was $99.3-5^{\circ}$ and her pulse 108; the pain in her side was less and she felt much better. By the third day her temperature was normal and she felt so well that in spite of my protests, she was determined to sit up. She coughed up rust-colored sputum for six or seven days but otherwise felt quite well. She has had no trouble with her lungs since.

Case II.—J. R., a female aged twenty years, had a chill at 6 o'clock in the morning, followed by fever and pain in the left side. I saw patient first at 8 o'clock P. M. next day, when her temperature was 102° , pulse 115, respiration short, with pain in the left side, and dullness on percussion over lower half of left lung. I prescribed six grains of protonuclein and two grains of phenacetin, and ordered the dose to be repeated every two hours. Next day at 4 o'clock P. M. her temperature was 101° , pulse 108, and she felt and looked better, but coughed up bloody mucus. The third day at 4 o'clock P. M. her temperature was 104° , pulse 120, and she felt worse, having more pain in her side, coughing up much bloody mucus, and feeling restless. On inquiry I found that she had only received her medicine every four hours instead of every two hours as I had directed. I now prescribed nine grains of protonuclein and two grains of phenacetin and ordered that the dose be repeated every two hours. The fourth day at 3 o'clock P. M. her temperature was $99.4-5^{\circ}$, pulse 96, and she felt better, coughed less and had but little pain. The protonuclein and phenacetin were continued. The fifth day at 4 o'clock P. M. her temperature was 98° , pulse 83, but little bloody mucus being expectorated, lungs clearing up, and she feels like leaving the bed. The protonuclein was continued and phenacetin discontinued. The sixth day her temperature and pulse were normal, appetite good, and patient convalescent. I prescribed nine grains of protonuclein, the dose to be repeated four times a day for a few days, after which no further medication was required.

I have treated ten cases of typhoid fever with protonuclein, all of which made an unusually early recovery considering the severity of the early symptoms of some cases. I will briefly report a few cases:

Case I.—E. H., a female, aged twenty-two years, had been sick one day. When I first saw patient her temperature was 105° and her pulse was 120. She was restless, talked in her sleep, tongue dry, skin dry, face flushed. An examination of her lungs revealed no indications of pneumonia. Diagnosis doubtful. I prescribed three grains, each of protonuclein and phenacetin, to be repeated every two hours. The next day the temperature was reduced to $103\frac{1}{2}^{\circ}$, pulse 115, but patient still restless, skin somewhat moist, tongue dry. On the third day her temperature was 104° , pulse 118, and she felt worse. The phenacetin and protonuclein were increased to four grains each, the dose repeated every two hours. On the fourth day her temperature was 103.5° , pulse 121, but she felt no better. The capillary circulation was not good. The phenacetin was discontinued and protonuclein, six grains and quinine two grains, repeated every three hours, were given. On the fifth day her temperature was 105° , pulse 123; bowels moved three times; other conditions not improved. Diagnosis, typhoid fever. The quinine was discontinued and the protonuclein continued, six grains every three hours. Cold packs were ordered every four hours when the temperature exceeded 102° . The cold packs were not used as often as directed, but were applied three or four times a day. The temperature came down gradually and the pulse improved until the thirteenth day when the cold packs were discontinued, the temperature no longer rising above 102. From the sixth to the twelfth day there was considerable diarrhea, the bowels moving from three to seven times in twenty-four hours. For this condition turpentine emulsion and bismuth were given. On the morning of the sixteenth day the temperature was normal, pulse 91; the diarrhea had ceased, she looked bright and felt good. After this the temperature varied from the normal to 101 until the twenty-third day when it suddenly ran up to 104° . The cold pack was applied but once; her temperature came down rapidly and the patient made a rapid recovery, being able to sit up before the end of the fourth week. The appetite returned about the eighteenth day and was good henceforth except when she had the high fever on the twenty-third day. She lost her hair, as typhoid patients usually do, after convalescence. This case started with unusual severity and promised to be a dangerous or prolonged one. Her unusual early recovery, in my opinion, can be attributed to nothing but the protonuclein which was continued until convalescence was completely established.

Protonuclein has a wonderful effect in maintaining the spirits and vitality of a patient during fever and has no depressing effect, while it reduces the temperature. This is particularly noticeable in typhoid cases. They do not lapse into that stupid condition which is so characteristic of this disease.

When protonuclein is taken in large doses, say ten to fifteen grains repeated every two or three hours, it produces a deafness and ringing in the ears very similar to that produced by large doses of quinine. In such doses it may also cause an unsteadiness of the nerves and an increased frequency

of the heart's action. If this condition is observed during the treatment of a disease it is well to withhold a few doses, when these symptoms will readily disappear without leaving any bad effects.

I have given protonuclein in scarlet fever with the effect of having the temperature decline and the swelling of the glands of the neck disappear, while the rash is coming out. I have given it with great success in puerperal fever, erysipelas, infected wounds, and in fact, consider it a valuable remedy in all infectious diseases.

Protonuclein also has quite marked tonic effects which are particularly noticeable when given in cases of general debility resulting from advanced age. As a tonic it should be given in from six to nine grain doses after meals and at bedtime. In neurasthenic cases it is of benefit, restoring a normal tone to the nervous system. I have given it in a few cases of whooping-cough with benefit. I have given it to a few tubercular cases but cannot say that it was followed by especial improvement. In cases wherein the temperature is high I usually prescribe small doses of phenacetin as a palliative remedy to assist in bringing down the temperature until the protonuclein has time to produce results. I consider protonuclein a very valuable addition to our remedies in combating disease, and feel that all who use it in large doses will be gratified with its results.

Speedy Dilatation of the Rigid Os.—Dr. J. Farrar, in a recent paper read before the British Medical Association, (*Brit. Med. Jour.*) calls attention to the value of cocaine, applied locally, for dilating the rigid os. He recites five cases, in all of which the method was successful. In the first case it was not applied with the idea of obtaining this result, but as a local anesthetic for incision of the cervix in a deaf-mute primipara, who had been in labor for 48 hours. The os was thin and rigid, "feeling almost like a circle of sheet tin" and dilated only to the size of a shilling. It had resisted all internal medicines and efforts to dilate with the fingers and mechanical dilators. A ten per cent. solution of cocaine was applied to the os, internally and externally, and the rag left in the os four minutes. Thinking the anesthesia sufficient by this time for the operation of incising, the scissors were introduced, but not used as the os was found to be widely dilated and as flexible and distensible as a rubber bag. The second time it was applied with the intention of producing relaxation in a primipara, aged forty years, and in four minutes the os was so distensible that he could easily slip it over the child's head and proceed with the delivery. The other cases were equally successful.

Diagnosis of Perforation of Bladder.—A perforation of the peritoneal wall of the bladder may be ascertained by drawing off the urine and then injecting a measured quantity of aseptic fluid into the empty bladder. If the bladder readily distends, and if in a short time as much of the fluid is withdrawn as was put into the bladder, the inference is strong that there is no perforation of the bladder. This evidence, of course, does not preclude a possible lesion of the ureter or pelvis of the kidney.—*H. M. Taylor.*

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.

W. H. WAKEFIELD, M. D.

Editors and Proprietors.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.

J. HOWELL WAY, M. D., Waynesville, N. C.

J. ALLISON HODGES, M. D., Richmond, Va.

S. WESTRY BATTLE, M. D., Asheville, N. C.

GEO. G. THOMAS, M. D., Wilmington, N. C.

J. P. MONROE, M. D., Davidson, N. C.

R. L. PAYNE, M. D., Norfolk, Va.

H. S. LOTT, M. D., Winston, N. C.

J. W. LONG, M. D., Salisbury, N. C.

H. A. ROYSTER, M. D., Raleigh, N. C.

ALBERT ANDERSON, M. D., Wilson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

THE CARE OF THE SICK AND WOUNDED IN THE WAR OF THE REVOLUTION.

IN this issue of the JOURNAL appears the first installment of a paper entitled "The Care of the Sick and Wounded during the War of the Revolution," by Dr. Packard of the Philadelphia Polyclinic. The subject is of unusual interest just now as we are having troubles of our own relative to a similar matter. It will be seen from this account of the medical history of the War for Independence, that the Surgeon Generals of the Continental army suffered much of the criticism and labored under many of the difficulties that beset our present Surgeon General in the last war, and this leads us to the conclusion that the position of chief medical officer in the United States Army during war times is not one of flowery easy. It is true that our ancestors did not have to contend with a diet of "embalmed beef" but they suffered from a similar lack of medical supplies as did our soldiers in the Spanish War, with this important distinction, that with them the supplies did not exist, while in our case there was a great abundance of all necessary articles but the distribution was defective.

Our troubles however, pale into insignificance when we contrast the plight of the sick or wounded soldier in the days of the Revolution. Think of the position of a regimental surgeon who could not raise enough instruments to fill a pocket-case.

A NEW REMEDY FOR RHEUMATISM.

There is perhaps no more convincing proof of the inexhaustible gullibility of mankind than is furnished by a thoughtful consideration of the various medical fads that have at various periods spread over the civilized world. No community however intelligent is capable of standing the subtle, but irrational claims of some new means for the cure of disease.

We know something of the peculiar doctrines of scientific christianity and have now and then heard of the Osteopaths: even the reverend gentleman, who, arguing from the premise that man was originally composed of dust, insists that all his ailments must be amenable to the external application of the same in the form of mud, has not escaped our attention, but we must confess that the "Electric Switch Glass Caster" for Rheumatism, Neuralgia, &c., has hitherto been overlooked. This latest boon to suffering humanity shows a record of 90 per cent. of cures, a result which need not stagger our credulity when we recall the perhaps forgotten fact that these diseases are due to a "too great flow of electricity from the body to the earth." This important fact once grasped, anybody might have thought of employing glass as an insulating agent.

In this connection our able contemporary the *Philadelphia Medical Journal* very pertinently remarks: "Of what a great mistake Jehovah was guilty in making the world, or at least the human feet! The earth should have been covered with glass, or the babies, likewise Cinderella, should all have been supplied with glass slippers. Then it would not have been necessary for all of us to go skating about with glass casters!"

Necrology.

DEATH OF RUFUS W. PEACOCK, M. D.—Dr. Rufus W. Peacock, of Jersey City, N. J., died on February 6th, at the age of seventy-two. He was born at Goldsboro, N. C., and practiced in the South for a number of years. In 1875 he took a post-graduate course at the Medical Department of the University of the City of New York, and since then had resided in Jersey City.

Dr. George H. Rohé, of Baltimore, died suddenly in New Orleans on February 9th. He was prominent as an alienist and sanitarian and was the author of a popular work on hygiene.

Dr. E. P. Hurd, died at Newburyport, Mass., February 24th of pneumonia, the result of exposure on a snow-bound train during the recent great snow storm. Dr. Hurd was about sixty years of age and a man of high literary attainment. He was an occasional contributor to the JOURNAL and his writings were always interesting and instructive.

Send us the names of two or three physicians to whom we may send sample copies; if you are pleased with the NORTH CAROLINA MEDICAL JOURNAL, drop them a card in our favor.

News and Items.

An Attack of Rheumatism is said to be ushered in by sore throat in 75 per cent. of the cases.

The Roentgen Rays have been used successfully in Paris as a scientific test for death. The slightest movement of the heart is said to blur the photograph.

Journal of the American Medical Association, Dr. George H. Simmons has been elected editor of the *Journal of the American Medical Association*. Dr. Simmons was formerly editor of the *Western Medical Review*.

In a certain tribe of Africans, living near Lake Nyassa, a popular method of committing suicide is for a native to wade out into the water and wait until seized by a crocodile. This is probably one of the surest means of attaining the desired end with a minimum of effort.

An alleged discovery of the bacillus of vaccinia, by Mr. Stanley Kent, of St. Thomas Hospital, is recorded in a London newspaper. Mr. Kent claims that it will revolutionize vaccination, as pure cultures of the vaccinia germ can henceforth be used for inoculation in the same way as pure cultures of diphtheria and tetanus are now available for preparing antitoxic serum.—*Med. Times*.

The Board of Medical Examiners of the State of North Carolina will meet in Asheville, N. C., on Thursday, May 25th, 1899. Applicants are urged to be promptly on hand at this time to register and prepare for examination on the following day.

THOS. E. ANDERSON, M. D.,

Sec'y Board, Statesville, N. C.

Premature Baldness, is said by Dr. J. M. Blaine in the *Jour. Am. Med. Ass.*, to be due in a very large proportion of cases, to the result of shaving, thus stimulating the growth of the beard at the expense of the hair. He claims that the habit of allowing the beard to grow from the age of 25 to 35 years of age would result in making alopecia prematura a rarity.

Old M. D.—“Are you having much practice?”

Young M. D.—“Yes; quite a good deal, thank you.”

Old M. D.—“Ah! I'm glad to hear it. Are you making a specialty of any particular thing?”

Young M. D.—“Yes, indeed. About nine-tenths of my time is devoted to the practice of economy.”

Riches and Medicine.—It is said Sir William Jenner, the best known of the Queen's physicians, who died recently in England, made a larger income than any other consulting physician in England. His revenue from his practice averaged \$75,000 annually. His largest fees were two of 5000 guineas each, both from American patients. One was for going to Scotland, and the other was in payment for attendance on a patient in Brighton, only an hour from London.—*Medical Age*.

The Plague.—Late telegraphic advices from Bombay report 1,500 deaths from the plague during the week ending Feb. 4th.

A Good Location.—There is a city of 60,000 inhabitants in Syria, not far from Latakia, in which there is not a single physician. The name of this fortunate or unfortunate place is Hamah. As is the case with most of the towns in that country, diseases of the eye are exceedingly common, and an oculist who is willing to rough it, and to suffer many discomforts could doubtless gather in numerous shekels.—*Med. Age.*

Medical Fees.—The Esquimaux gives the doctor his fee as soon as he comes. If the patient recovers he keeps it; otherwise he returns it to the family. In Mexico the doctor gets his fee before the patient is buried; otherwise the deceased is believed to dwell in purgatory until the fee is paid.—*Ex.*

Dr. George H. Simmons, of Lincoln, Neb., and formerly editor of the *Western Medical Review*, has been unanimously elected editor of the *Journal of the American Medical Association* to succeed the late Dr. John B. Hamilton.

Power of Recuperation as well as preparation at all times for emergencies are well shown by Messrs. Wm. R. Warner & Co., who recently suffered serious loss in Philadelphia by fire. The firm is *now* filling orders from their laboratory at Broad and Wallace streets, that city, with but little delay.

Infant Feeling.—A famous author, in spite of the physiological fact known these thirty years, that there is saliva and pancreatic juice in the infant economy, has only lately been converted to a faith in farinaceous foods, and is experimenting with other than milk-sugar, and he comes to the conclusion, based on I do not know how many sleepless nights, that the feeding on woman's milk may be carried on too long. Many begin also to find out that cow's milk may be done to death by inconsiderate cooking, and that the latter is not rendered more sacred or more wholesome by calling it sterilization.—*A. Jacobi, Phila. Med. Journal.*

Woman Leadership.—It is significant that in the consolidated statistics showing the success with which the candidates have passed the tests of the state medical boards both for the last year, and for the period of six years, the women's colleges should stand at the head, though they are less fully equipped, and have much smaller faculties. The papers are marked without any knowledge of the sex of the candidate, and it is beyond question that the women have won their proud position of leadership on their merits. This is due, as nearly as we can determine, largely to the fact that a young woman is usually willing to take a fuller preparation for her professional study, and is not so eager to get into practice that she will cripple the quality of her work by insufficient general education.—*Bulletin Am. Acad. Medicine.*

A Postoffice Physician.—The Chicago postoffice is to employ a physician permanently at a salary of \$1,700 a year, who will be stationed at the main office to examine employees who report themselves sick and unable to attend to their duties. It is expected that he will work a saving greater than the amount of his salary.

Difficulties of Consultation Practice.—The following clipping from the *Philadelphia Medical Journal* is offered our readers on the principle that “a little nonsense now and then” is relished even by the doctor:

To the Editor of the Philadelphia Medical Journal:—

The letter you publish from Dr.—, on page 1263, December 17th, tempts me to send you accurate copies of two bona-fide letters, received by me some months ago. I omit the signatures (as well as my own, to this communication) for obvious reasons. The two practitioners who sent these letters are not members of any county society, nor is any college in Pennsylvania responsible for them. They both, however, “hang their banners” on the outer wall.

No. 1.

“Dok———

fer gawds sake com over and see a woman in turrable Shap i think her will go up it luks to me like her had bust her rectum or off that kind. her is at My house bot see hear dok i am not a rigler like you but if you com bedam if i wont lev the hous an staout til your gon fer the womans sak come rite off

yours

———, M.D.”

The writer went. The non-“rigler,” true to his word, went out and stayed out. It was a case of simple rectal prolapse.

No. 2.

“Dok———esq M.D.

Dere Sur

Will you pleas an be so kind and sen me a buk on Womans Diseas. if you hav to of them sen the ole Skule Buk they is the best fer me. I have a curos kase. women of corse. she ar broke out in Bunches on the posterer legs I think it mus be Siflis sen by nex trane and I will sen back in a weak with my komplements.

yours freeternl

———, M.D.”

The “old Skule Buk” was not sent on the “nex trane,”

Yours,

A clergyman was very anxious to introduce some new hymn books into the church, and arranged with the clerk that the latter was to give out the notice after the sermon. The clerk, however, had a notice of his own to give out, with reference to the baptism of infants. Accordingly, at the close of the sermon, he arose and announced that, “All those who have children whom they wish to have baptized please send their names at once to the clerk.” The clergyman, who was deaf, assumed that the clerk was giving out the hymn book notice, and immediately arose and said, “And I would say for the benefit of those who haven’t any, that they may be obtained at the vestry any day from 3 to 4 o’clock, the ordinary little ones at one shilling each and special ones, with red backs, at one shilling and four pence.”—*Western Medical Review*.

Book Reviews.

Glaucoma ; Its Symptoms, Varieties, Pathology and Treatment.—By Alex W. Stirling, M. D., C. M. (Edin.) D. P. H. (Lond.), Atlanta, Ga. Member of the Ophthalmological Society of Great Britain, late House Surgeon Royal Westminster Ophthalmic Hospital, London; Instructor in Ophthalmology, and Ophthalmic Surgeon, Post-Graduate Medical School and Hospital, New York; Assistant, Manhattan Eye, Ear and Throat Hospital, New York, etc. Pages 177; Jones H. Parker, St. Louis.

The contents of this little book have already appeared serially in the *Annals of Ophthalmology* and are largely a compilation of the views of others, with comments by the author, arranged in concise and convenient form and intended for students and the general practitioner.

The author first takes up the symptoms, giving a good description of them. The many theories advanced in explanation of the etiology of glaucoma are given in six chapters.

In discussing mydriatics, he says: "It may with safety be said that without exception all mydriatics are to be avoided in an eye predisposed to glaucoma, and that their action should be watched in every case, and more especially after middle life." With which sentiments the reviewer thoroughly agrees.

One chapter is devoted to diagnosis and prognosis, and two to treatment. On the whole the subject is clearly treated and the volume supplies any existing need. The practitioner who will read the little volume of 175 pages once and chapter 12 twice, will not be like to mistake glaucoma for iritis, rheumatism or neuralgia and use atropin to the destruction of vision.

Ocular Therapeutics for Physicians and Students.—By F. W. Max Ohlemann, M. D., Minden, Germany, translated and edited by Chas. A. Oliver, A. M., M. D., C. P. Blackiston's Son & Co., Philadelphia, 1899 Cloth \$1.75; pages 275.

The editor in his preface says: "The belief that an association of the best work of the Continental writers on ocular therapeutics might be brought together into a combined form, and that such an association would prove of value not only to the ophthalmologist, but to the profession at large and the knowledge that in the work of the present author an authoritative and valuable exposition of the subject as now known abroad has been given, have been the inducements to present the accompanying authorized translation to the American reader." After a careful reading of the volume we congratulate the profession on having placed in its hands a volume so convenient and valuable. The various diseased conditions of the eye and appendages are taken up *seriatim* and without entering into pathology or general symptomatology, the cream of continental ocular therapeutics is placed before the reader, the method of application being illustrated by the text. The busy family doctor has too little time at his command to allow him to wade patiently through page after page for suggestions in ocular therapy. In this volume he finds condensed into a few pages, under appropriate headings, the principal indications for treatment and the various agents in R form, that have furnished the best results in the hands of the leading ophthalmologists in Europe. No attempt is made to advocate any particular theory or routine; all well tried plans of treatment are given; there are 225 prescriptions, all told, and no official ophthalmic drug, so far as we can see, but is inclined in one or more of them. Ocular therapeutics is rather a difficult subject to master, but there is no text-book in which the treatment of eye diseases is more clearly set forth than in this translation by Oliver.

Manual of Diseases of the Skin, With the Analysis of Twenty Thousand Consecutive Cases, and a Formulary.—By L. Duncan Bulkley, Physician to the New York Skin and Cancer Hospital, etc. Fourth edition. Revised and enlarged. 362 pp. New York; G. P. Putnam & Sons. 1898.

This little volume, as the author says in his preface, does not pretend to be a complete and comprehensive exposition of dermatology, but for the general practitioner who desires to freshen his, perhaps dim and indistinct knowledge of diseases of the skin, or for the use of the student, it fulfills a most admirable purpose. In fact it would seem impossible to compress so much practical and valuable information upon this subject in so small a space. Dermatology is usually looked upon by those doing general practice as a kind of bugbear and chronic cases of skin affection are promptly referred to the specialists or given up in despair. Yet Dr. Bulkley claims that an accurate knowledge of this subject is worth more to the doctor engaged in general practice than the mastery of any other specialty.

A considerable portion of the book is devoted to treatment and diagnosis, two matters of very great importance to the busy practitioner. The author has also added a number of formulas which will be found quite useful. A unique and very convenient feature of the work is a diagnostic index. We can cheerfully recommend this book to anyone desiring a manual on skin diseases.

Merck's Manual of the Materia Medica.—Together with a summary of Therapeutic Indications and a classification of medicaments, compiled from the most recent authoritative sources and published by Merck & Co., New York. Price \$1.50.

Merck's Manual contains a great deal of useful information for the Doctor, that it would be quite troublesome to find elsewhere. All that class of new remedies which, while receiving the sanction of high authorities, are not as yet to be found in the works on Materia Medica possessed by the average physician. In addition it contains the formula of those "medicamentous mixtures" advertised only to the profession and which are being largely prescribed. As a quick reference for any one desiring to learn the essential chemical, physiological or therapeutic facts concerning a particular drug, as well as a complete list of the medical agents employed in the modern treatment of the several diseases, the manual will be found highly serviceable.

Three Thousand Questions on Medical Subjects arranged for self examination. Second edition enlarged and revised. P. Blakeston's Son & Co., Philadelphia. 1899. Price, 10c.

These questions cover all the branches of medicine. The answers to the questions do not appear in this volume, but following each question are figures which refer to the volume and page where the answers will be found. Thus we find the following: What is milk-fever? 5-168. By referring to the list of books we see that the answer to this question will be found on the one hundred and sixty-eighth page of *Laudis' Quiz-Compend on Obstetrics*. Alternate pages in the volume are left blank so that other questions may be inserted.

Lessons in Hypnotism and the Use of Suggestions Based Upon the Neuron Motility Hypothesis, by Leslie J. Meacham. Published by The Bishop Publishing Co., Cincinnati. \$1.00.

The popularity of this little volume is shown by the exhaustion of the first edition in nine months. The second edition, issued in Dec. '98, is a reproduction of the first, the continued demand not allowing time for revision.

The author devotes two chapters to "Theory," one to "How to Produce and Test Hypnosis," one to "Therapeutics" and one to "Cautions," concluding with thirty-four two-third page, half tone illustrations, showing position of operator and subject during the induction of the hypnotic state.

The reviewer disclaims any practical knowledge of the subject, but after a careful reading of this little volume concludes that it contains much that is practical and that any physician could profit by its reading.

The Medical News Pocket Formulary for 1899. By E. Quin Thornton, M. D., Professor of Therapeutics, Pharmacy and Materia Medica in the Jefferson Medical College, Philadelphia. Lea Brothers Co., Philadelphia, 1899.

That there is a tendency on the part of some doctors to use these ready made formulas when the diagnosis allows it, is acknowledged by the author when he says in his preface that "in preparing this little volume there has been no intention that it should replace individual thought on the part of the practitioner," but we agree with him in thinking that the physician need not fall into that habit for availing himself of these suggestions, founded upon the clinical experience of leading men in the profession. The volume contains beside formula for the various diseases, these being arranged alphabetically, useful items of information such as comparative tables of weights and measures, incompatibles, doses, etc. The volume is gotten up in good style, but is rather too bulky to be carried in the pocket constantly.

Eczema of Children : Dr. Thomas S. Southworth says that it has seemed to him that the reason the eczemas of childhood have been the reproach of the general practitioner is that the opinion seems to prevail that the physician had done his whole duty when he had written a prescription. On the contrary, the eczema should not be treated locally, but the diet should be regulated and a regular action of the bowels secured. It was exceedingly important to prevent further irritation by confining the hands. It seemed to him better not to apply water to the eczematous areas, but to clean them with olive oil. In the large majority of cases the diet should consist largely of milk, and certainly the starchy foods, and especially potatoes, should be reduced. He heartily agreed with Dr. Chapin regarding the usefulness of the fluid malt preparations. After attention to the diet and constipation, the local treatment was usually simple, the important points being to avoid the use of irritating ointments. Probably the best ointment for the average case of infantile eczema was the ordinary zinc oxide ointment. When the skin was thickened and scaly, it might be desirable to add one-fourth of tar. For the eczemas about the ear, he knew of nothing better than a 2 per cent. ointment of ammoniated mercury.—*Pediatrics*.

Enterprise.—A London undertaker whose business needed boosting, had the following sign posted in his window: "Why walk about the earth in misery, when you can be buried for 30s?"

If you see anything in this journal that you differ from, write us about it; if you see what exactly agrees with your views and experience, write about that also. Give us the benefit of your views. Send us reports of interesting cases

Review of Medical and Surgical Progress.

The Prevention of Gonorrhoea.—In the *Georgia Journal of Medicine and Surgery* there is quoted from the *American Journal of Dermatology and Genito-Urinary Diseases* an article by Dr. G. J. Monroe on the prevention of gonorrhoea in the male, in which he gives a patient, whom he characterizes as a "high roller," a prescription to be used after every connection to prevent gonorrhoea. Immediately after intercourse he orders the patient to urinate and then wash the penis and scrotum with tar soap, which he is to carry with him. Then he is to inject with a glass syringe a solution of the permanganate of potash, one drachm to seven of water. This is to be passed out at once, and a second injection is held in the urethra for about a minute; then the penis and scrotum are to be washed with this solution, which is not wiped off, but allowed to dry on the skin.

By following this direction the patient has never had a second attack of gonorrhoea but once, when he broke his bottle of valuable solution. He has had intercourse for the sake of science with women who are known to have gonorrhoea, and has escaped by the careful use of the treatment suggested. There may come a time when the man-about-town will carry his soap, bottle, syringe and cotton with him always, and the genito-urinary surgeon will have no more cases of gonorrhoea to treat.

Dr. F. Schöpe, in *Wiener Klinische Wochenschrift*, on the treatment of aneurism, says: Modern operative technic has so lessened the dangers of operations that the question to-day is, which method of treatment will give the most extensive collateral circulation, and the least chance of partial or total gangrene? Therefore there need be no hesitation, because of the danger of sepsis and secondary hemorrhage, to operate when operation seems to be indicated. Schöpf offers the following conclusions as fundamental rules to be observed in the treatment of ilio-femoral aneurism: Whenever possible, compression should be given a trial before resort to more severe measures. By this method it is possible in many instances to effect a cure, and if failure takes place the collateral circulation has been in part established. If compression fails, operative procedures are then indicated, and when feasible, total extirpation of the sac should be chosen as the surest. These rules are especially applicable to ilio-femoral aneurisms, but they are equally so to aneurisms of other portions of the body, if they are so situated as to allow of operative treatment. During recent years total extirpation has been more frequently practised than earlier.—*Phila. Med. Jour.*

Fallacious Tests for Albumen in the Urine.—Under this head Dr. Ogden C. Ludlow (*Medical Record*) discusses at some length the unreliability of the alcohol test for albumen. He claims that this test is a rough-and-ready method and leads to superficial examination and faulty diagnosis. In support of this he gives the following result of experiments made to determine the relative value of the alcohol test:

"The examinations were made, for the most part, on supposedly healthy individuals, many of them candidates for life insurance. The result of the alcohol test was noted in 150 examinations, made on 95 different persons, and one or more of the well-known tests for albumen were generally used for purposes of control. The findings may be briefly summarized as follows: Reaction "very marked" (*i.e.*, a decided cloud with only one drop of urine) in 28 cases; reaction marked (*i.e.*, a decided coagulation with one or two drops of urine, but less copious than in the first group) in 48 cases; reaction "slight" (*i.e.*, where a faint cloud is produced by the addition of from one to three drops of urine) in 25 cases; reaction "barely perceptible" (*i.e.*, reaction only visible on close scrutiny and under careful illumination) in 18 cases; and "negative" (or no reaction) in 31 cases. This means that alcohol indicated the presence of albumen by a well-marked reaction in 76 of the 150 cases, or 50.6 per cent.; that the test responded feebly, but unequivocally, in 43, or 28.7 per cent.; and that there was no reaction in 31, or 20.7 per cent. of the whole number. It is a significant fact, in connection with the question of the practical value of the alcohol test, that in 83 cases, or over 50 per cent., this test gave the reaction for albumen, yet the control yielded a negative result. In the remainder of the examinations the urine was either albuminous, or the result with the alcohol was also negative."

The writer regards the nitric acid and the heat test as being far more liable, and the best for all practical purposes.

Typhoid Fever.—Dr. Osler, of Baltimore, in an address on this subject before the New York State Medical Society laid great emphasis on the fact that for very many years the medical profession had been fully alive to the true nature of typhoid fever. One fact stood out with special prominence—*i. e.*, that with clean soil and pure water typhoid fever disappeared. While many advances had been made in the treatment of this disease, they had been nothing compared to the triumphs of sanitary science. The medical profession could point to typhoid fever as the best understood and the most carefully studied of the acute infectious diseases—the one in which the greatest victories in hygiene had been won. But in spite of these triumphs, we had had a rude awakening last fall in the many soldiers who fell victims to this dread disease. Ours was a nation, Dr. Osler said, of contradictions and paradoxes—a clean people, careful in personal hygiene but reckless regarding public sanitation. Dr. Smart, the great authority on hygiene, recently made the statement that the cities of this country, as regards the matter of water-supply, were at least a century behind the cities of Europe. In organized sanitation Michigan was one of the model States. The problem of typhoid fever, Dr. Osler declared, was no longer in the hands of the profession; even the lesson of the late war had probably not been bitter enough to teach the public that sanitary science should come within the sphere of practical politics. Our good-natured citizens, who always voted a straight party ticket, were not deeply interested in the problems of sanitary science; they were more easily led by a Perkins or a Munyon than by a Lister or a Koch. Our glorious land has been recently described as "God's own country, with man's own backyard, and the devil's own cesspool."

Bronchitis.—A full dose of Dover's powder will frequently abort an attack.—*Charbonneau.*

Opium should be freely used in the form of Dover's powder. No remedy can take its place.—*Osler.*

The following therapeutic results are from the use of opium in full doses: Reduction of irritability, congestion, or inflammatory activity. Alteration in the character and limitation of the amount of the secretion. Increase in the general comfort by relief of pain and soreness, and removal of cough and incidental insomnia. Speedy and permanent cure of eighty per cent. of the cases.—*W. T. English.*

Infected by Absorption.—An eye quack, who advertises to cure all diseases of the eyes by the simple process of "absorption," recently admitted to his house a patient with gonorrhoeal ophthalmia; and, as it is a poor rule that does not work both ways, and since absorption at that time was working freely, many of the other inmates caught the disease. Each sufferer was assured there was nothing the matter, and that it was all in his eye. The true nature of the disease was finally discovered in time to save the sight of the victims, and now the latter are suing the quack in the hope of absorbing some of his dollars as a sort of salve for their sore feelings and sore eyes.

A Conclusive Proof of the Efficacy of Vaccination.—Conclusive to those who have not lost both their logical and their common sense—is furnished by the experience of the Germans, and especially of the German army. A philanthropist could make no better use of his money than to gather these results into a pamphlet and distribute it repeatedly to every faddist of the "Humane," the Antivaccination, and the Antivivisection Societies. He should also secure its insertion as an advertisement in *Life*, and in the other anti-science journals. Dr. Bizzozzero, of Rome, according to the *Lancet*, thus summarizes the German experience:

"Germany stands alone in fulfilling in great measure the demands of hygiene, having in consequence of the calamitous small-pox epidemic of 1870-71 enacted the law of 1874 which 'makes vaccination obligatory in the first year of life and revaccination also obligatory at the tenth year.' What was the result? With a population of 50,000,000, having in 1871 lost 143,000 lives by small-pox, she found by her law of 1874 the mortality diminished so rapidly that to-day the disease numbers only 116 victims a year. These cases, moreover, occur almost exclusively in towns on her frontier. If it were true, continued Prof. Bizzozzero, that a good vaccination does not protect from small-pox we ought to find in small-pox epidemics that the disease diffuses itself in the well-vaccinated no less than in the non-vaccinated countries. But it is not so. In 1870-71, during the Franco-German war, the two peoples interpenetrated each other, the German having its civil population vaccinated optionally, but its army completely revaccinated, while the French (population and army alike) were vaccinated perfunctorily. Both were attacked by small-pox; but the French army numbered 23,000 deaths by it, while the German army had only 278; and in the same tent, breathing the same air, the French wounded were heavily visited by the disease, while the German wounded, having been revaccinated, had not a single case."

The Toxemic Factor in Diabetes Mellitus.—Dr. G. W. McCaskey presents in *Medicine* (January, 1899) an interesting paper on this subject, based on a clinical study of two cases. The importance of the pancreas as a possible etiologic factor in the production of glycosuria appears to be conclusively proven by the experiments of Mering and Minkowski. This can be true, however, in only a limited proportion of cases, for recent investigations have shown that in possibly one-half the cases nothing whatever can be found wrong with the pancreas macroscopically or microscopically. Experiments on lower animals have demonstrated that it is not the ordinary secretion of the gland that is poured into the intestine that prevents an excessive glycemias by the transformation of the glycogen, but a "something," very possibly a so-called internal secretion, which passes directly into the blood without the intervention of the duct. No other explanation seems possible of the effect of subcutaneous or peritoneal pancreas grafts in preventing the occurrence of a pathologic glycemias after complete extirpation of this organ.

We are ignorant of the manner in which disease or injury of the nerve centres produces glycosuria, whether through stimulation of the glycogenic function of the liver or otherwise. Pathologic anatomy tends to minimize the importance of the liver as a factor in the causation of diabetes, but in view of the frequent occurrence in diabetes of symptoms of hepatic disturbance we should be cautious in thus excluding it. The failure, in certain fatal cases of diabetes to find any pathologic changes, except, perhaps, such as are inconstant and secondary shows how imperfect is our knowledge of the true nature of this disease. In support of the chemic origin of the disease the author alludes to the production of glycosuria by the introduction into the circulation, either by hypodermic injections or by the stomach, of phloridzin, a chemic substance derived from the bark of the trunk and root of apple, pear, plum, and cherry trees. Mering found that by administering to one of his patients one gramme twice daily for a month it caused the excretion of nearly one-fourth of a pound of sugar daily. The glycosuria disappeared the day following the last dose, and the patient was apparently as well as ever.

Admitting that a toxemic diabetes may occur, for phloridzin cannot act otherwise than as a blood poison, the suggestion arises as to the possibility of auto-intoxication as a cause of diabetes. With this suggestion in view the author made a clinical study of the following two cases: Case I. was a merchant, aged 62, who had been under treatment of his family physician for a year on account of diabetes mellitus. The patient had lost about forty pounds in weight during the year in spite of a voracious appetite, the loss during the last month being three pounds. The daily excretion of urine was 4000 cubic centimeters, specific gravity 1039, solids 363 grammes, reaction acid; urea 52 grammes; sugar 276 grammes; chlorides 46 grammes; indican 320 milligrammes. Taking the large quantity of indican as proof of intestinal putrefaction, an examination of the colon revealed large quantities of mucus, with a rich growth of bacteria and protogaea. To ascertain whether a gastro-intestinal auto-intoxication might not be in some measure responsi-

ble for the symptoms, thorough disinfection of stomach and intestines was advised. The former was declined, but the patient entered at once upon a course of colon irrigations, abdominal massage, and hydro-therapeutics, at first daily, and later on alternate days, continuing the treatment about a month. No drugs were given and the diet, which consisted of Graham bread *ad libitum*, meat, fish and apple sauce, was unchanged, except for the addition of a baked potato twice a day. The result was almost immediate; in two days the sugar had fallen to 168 grammes, the fifth day to 142, the eighth to 112. By this time the indican had been reduced one-half. At the end of three weeks the sugar had fallen to 40 grammes. The polyuria remained unchanged, however, and though the patient's symptoms were all improved, and his weight increased three pounds instead of diminishing, he became discouraged and disappeared from view.

The second case was that of a woman, aged 52. She complained of severe parasthesia of both hands and arms, extending to the shoulders, of about fifteen years duration, pains in the neck, and a paroxysmal pain in the coccyx, relieved by pressure. She had suffered for years with sick headaches, lately of increasing frequency. Losing strength and flesh gradually, though appetite was good and had no stomach distress. Had excessive gas formation in both stomach and bowels. The quantity of urine was 1500 cubic centimetres; specific quantity 1030; urea 1.3 per cent.; sugar 140 grammes daily; indican 300 milligrammes, indicating extensive proteid decomposition in colon. Examination of stomach and colon made it evident that there was considerable autointoxication and it was believed this had much to do with the producing of the symptoms. No drugs were given and the diet remained unchanged. She was advised to eat liberally of whatever she pleased. Daily irrigations of stomach and colon, with intragastric faradism, abdominal massage, and general hot and cold douches, was the treatment instituted. Improvement in all the symptoms began immediately. After two weeks of treatment the headaches, troublesome nervous symptoms, and the coccygeal pain had entirely disappeared. In ten days the amount of sugar excreted had fallen to 15 grammes and the amount of urine to 925 c.c. The patient then went home for a week but remained away two weeks. The glycosuria increased during this respite in the treatment, until when she returned she was excreting over 100 grammes of sugar and about 1500 c.c., of urine. The stomach, which had very much improved under the treatment, had returned nearly to its former condition. The same treatment was again instituted and the result was practically the same as the first. The condition rapidly improved until the amount of sugar reached 10 grammes a day. From his experience with these cases, the author thinks the following conclusions warranted:

1. That all cases of persistent glycosuria are cases of diabetes mellitus, of varying grades.
2. That diabetes mellitus is a disease of diverse origin, the unit of the clinical picture being for the most part dependent upon the glycemia and

glycosuria, which are mere incidents, although dominating factors of the disease.

3. That phloridzin diabetes are not essentially different from clinical diabetes, and that it renders plausible the assumption of a chemic factor; either as a primary or an important secondary cause in the clinical type of the disease.

4. That normal sugar transformation in the blood, the failure of which is responsible for glycemia and glycosuria, is the result of a chemic product in the blood, derived in man principally, if not exclusively from the pancreas, and thrown directly into the blood from the pancreatic cells, without the intervention of the duct.

5. That the direct chemical antagonism of this chemic substance by another is no more improbable than such antagonism of a toxin by an antitoxin, which Martin has recently established.

6. It is probable on both clinical and experimental grounds that certain chemic poisons, for the most part of gastro-intestinal origin, but possibly also from faulty tissue metabolism, or as a perverted "internal secretion" from glands, not necessarily ductless, either directly or indirectly antagonize, in whole or in part the sugar destroying substance in the blood, thus giving rise to glycemia and glycosuria, and thus either primarily causing or at least exaggerating the clinical phenomena of diabetes mellitus, in a certain group of cases.

7. If further investigations should corroborate the conclusions here provisionally set forth, it would be advisable hereafter to investigate the bacteriology of stomach and intestines in cases of diabetes mellitus, and if evidences of virulent bacterial, or parasitic growth are found, these conditions should be met by suitable treatment, not with the expectation of entirely supplanting dietetic treatment, but as an important auxiliary to the latter, possibly rendering its restrictions less severe, with less resulting impairment of nutrition.

Colloidal Silver as an Antiseptic.—Dr. B. Credè (*Med. Rev.*) in an interesting paper on the prevention of sepsis after laparotomies and uterine operations, claims continued success, with this preparation to which he called attention three years since. He believes that on the basis of a large experience he can recommend a procedure which will effect all that is possible to prevent sepsis, and will mitigate or cure it when present, for operations on the aseptic or infected abdominal cavity, for uterine operative work, and for all large wound cavities. This procedure consists in the imbedding of soluble metallic silver, the *argentum colloidal*, in the most dangerously situated portions of the cavity and wounds. He uses the drug in the form of pills described by him as "*Pil. Argent. Coll. Minores.*" These contain 0.05 grammes ($\frac{3}{4}$ grains) of *argentum colloidal*, the same quantity of sugar of milk, and a trace of glycerine.

If thoroughly prepared they are soluble in distilled water, the silver being still in the colloidal condition. It is finely subdivided and mixed with the

milk sugar, and hence the penetration of fluids and the solution of the silver is rendered easy.

In introducing the pills of colloidal silver into the uterine cavity after an operation that is likely to be followed by sepsis or decomposition of the secretions, one to three pills are placed in the middle of a piece of gauze bandage about eight to twelve inches in length, which is then doubled and twisted into a long spiral body. This is caught just below the pills with a pair of long forceps and carried to the fundus of the uterus, being left so that the free end just hangs from the cervix. The cervix is then dusted with silver nitrate and the vagina loosely packed with gauze bandage. The vaginal tampon is removed in from 24 to 48 hours and another applied; the intra uterine gauze is left in situ for at least five days.

The author describes his method of preparing silver catgut which he has used for three years and with which he is still absolutely satisfied. The method is as follows:

The catgut as it comes from the factory in thick coils, but somewhat loosened, is placed in a brown glass, wide-necked bottle; if a white glass receptacle is used it must be covered with black paper. A solution of the lactate of silver, 1 to 100; is then poured in until the catgut is completely covered. Here it remains for one week; then it is taken out; and placed in an ordinary, large glass vessel, covered with glass, and exposed to the brightest, possible light. The lactate of silver in the swollen threads is reduced to metallic silver, and the fibers becomes brownish black. Then the catgut is washed in boiled water until the wash-waters come away clear. It is then placed in a large flat glass vessel, and covered with a double layer of muslin. After it has dried for two or three days it is straightened out with carefully washed hands, cut in 30 cm. (12 inches) lengths, and tied into bundles. It is preserved in a long metal box similar to that used for catheters, wrapped in four folds of muslin. Before use it is best placed for fifteen minutes to an hour in alcohol, in which it remains until it is used up. Catgut so prepared is absolutely sterile, and acts antiseptically so far as the silver that it contains reaches.

The following is his technique in an operation in which six inches of the transverse colon was removed for cancer:

After fastening the Murphy button, and making a Lembert suture over it also because the intestinal edges could not be completely invaginated, I washed both the external and the internal field of operation with a gentle stream of a 1 to 8,000 citrate of silver solution. Then drying with sponges, I dusted the suture line lightly with the citrate, and with a Lister forceps I placed two silver pills in the wound, one 5 to 6 cm. (2 to 2½ inches) above and the other the same distance below the resected intestine, and then closed the abdominal cavity in the usual way. Healing, as in all the sixteen laparotomies which up to the present I have treated in this way, ensued not only with a quite remarkable absence of reaction from the peritoneum, but even without the so-called aseptic fever. This evening rise of tempera-

ture to 38.2°C . (100.8°F) formerly occurred for two or three days in a noticeable minority of the cases. I have come to the conclusion that this fever also is usually caused by a mild degree of septic infection, though in some instances other influences, such as a cold, or a gastric catarrh may cause it. I have had no trouble with this prophylactic imbedding of the silver. I have never had argyrosis, or any other symptom which would betray the presence of the silver in the wound.

When there is an infectious peritoneal process, as occurs with infections of the gall bladder and appendix, as also in cases of carcinoma of the peritoneum, the purulent secretion becomes serous in a surprisingly short time under the treatment. In such cases drainage is substituted, or a free outlet for the secretions is inserted by the use of silver gauze or that of the ordinary absorbent kind. This latter method also prevents the dislodgment of the pills. The secretion upon the deeper layers of the gauze has of course a pronounced gray or grayish-black color in the beginning.

The colloidal silver is soluble in serum in the proportion of 1 to 25; and it remains in solution in albuminous fluids in spite of the salts that they contain. The small amount of fluid required is probably always present in the abdominal cavity after operations; one or several of the pills are soon dissolved, and the solution is taken up by the lymphatic channels of the omentum. If the pure silver solution anywhere comes in contact with pathogenic cocci, lactate of silver will presumably be formed and exercise its antiseptic effect.

Nitroglycerin in Spasmodic Croup,—Dr. G. G. Marshall (*Atlanta Med. Weekly*) has found in nitroglycerin an ideal remedy for spasmodic croup where steam inhalations and emetics fail or depress too much to allow respiration. He recommends small doses frequently repeated. To children from five to ten months old he gives from one ten-hundredth to one six-hundredth of a grain, repeated in from five to ten minutes if no effect is noticeable. Usually in ten minutes there is a marked relief in the dyspnoea and the general appearance of the child. By repeating these small doses from every 15 minutes to once in two or three hours, the laryngeal spasms are controlled. Sometimes it is not necessary to repeat it more than once or twice; at other times the remedy has to be continued at more or less frequent intervals for two or three days.

Pruritus ani is often promptly relieved by the application of an ointment of calomel, 80 grains to an ounce of vaseline. For pruritus vulvæ is also efficient.—*Med. Council*.

It is often much more difficult to diagnose fracture of the ribs than is commonly thought to be the case. If you cannot satisfy yourself that a rib is broken, but get many of the subjective signs of such a fracture, treat the case as if you were sure that the solution of continuity really existed.—*Med. Council*.

Eye, Ear, Nose and Throat Department.

In charge of W. H. WAKEFIELD, M. D., Charlotte, N. C.

Headache From Nasal Causes.—J. A. Thompson, M. D., Cincinnati: Ohio. In a paper read before the Cincinnati Academy of Medicine, the doctor states that— Headache is so frequently found associated with obstructive lesions of the nose that its presence and cure by operations in the nose are every day observations of the Rhinologist. The author cites several typical cases of nasal obstruction in which headache was the prominent symptoms, and outlines the treatment which resulted in a cure.

Nasal obstruction is caused by various pathological conditions, as for instance: A turgent condition of the mucus membrane covering the turbinals, or of the septum; true hypertrophy of the turbinials; spurs or ridges on the septum, polypoid growths, foreign bodies, and in tropical countries the presence of maggots in the nose.

In all cases of headache due to nasal causes, mouth breathing is more or less pronounced. The treatment to be successful must be directed toward clearing the nasal passages of all obstructions to respiration.

The methods of treatment for each cause can be found in any good work on rhinology. In some cases general treatment must follow local measures but ordinarily this is not needed as with the relief of the nasal stenoses the headache promptly disappears and the general health rapidly improves. No patients are more grateful than those who after years of suffering have had the "grim hand of a nasal headache removed from their brow."

A Rival of Professor Schenck.—Dr. Charles Ignatius Proben, of New York, has brought back with him from Porto Rico, certain "charms" which he says are most implicitly believed in by the natives. When a woman becomes pregnant she goes to her priest and, if she longs for a boy, pays him to bless a little image of a boy, which she then wears upon her person during the whole period of gestation. If, however, she prefers to present her husband with a girl, an image of a girl is blessed, and is then worn by the prospective mother. Dr. Proben also exhibits an image of two plump breasts of milk, which the mother who dreads her supply of nourishment for her baby may run short, wears with a firm and abiding faith in its galactogog properties.

The Boston Emergency Hospital has adopted the use of an electric circular saw to take the place of the knife in making amputations. Dr. Galvin claims that by its use no anesthetic is necessary, as the operation is painless, and it shortens the time, as it cuts through almost instantly. This he claims lessens the shock. No ligatures are needed, and all the cases so far treated have done better than by the old method.

Therapeutic Hints.

Acute Colic.—

- R Tinct. opii deodorat, ʒ i.
Chloroformi, ʒ iss.
Camphoræ, gr. iv.
Ol. cajuputi, ʒ i.
Aquæ, ʒ ij.

M. S. One teaspoonful every hour.

—*Med. Record.*

In Irritable Uterus, Diffuse Pelvic Pains, and hysterical neuroses in various parts of the body:

- R Potassi bromidi, ʒ i.
Aquæ, O i.

M. S. Use in a vaginal injection.

—*DR. MUNDE.*

Irritable Bladder After Confinement.—

- R Salol, aa ʒ ij.
Tinct. hyoscyami, aa ʒ.
Inf. Buchu ʒ vi.

M. S. Tablespoonful three times a day.

—*DR. W. E. FOTHERGILL.*

Stomatitis in Smokers.—

- R Salol, i.
Tinct. catechu., 2.
Spir. menth. pip., 50.

M. S. A teaspoonful in a glass of warm water as a mouth wash.

—*Med. Record.*

Sirop de l'Enfant Jesus.—This calming syrup, employed in young children for the relief of insomnia, convulsions, etc.; is said to represent in each teaspoonful:

- R Potass. brom.,
Sodii brom.,
Ammon. brom.,
Calcium Brom., aa 0.05 cgm.
Syr. belladonnæ, (Fr. Cod.) 1 gm.
Syr. aurantii flor., 5 gm.

Dose: One to four teaspoonfuls according to age.

—*Bull. de Pharm. de Lyon.*

Whooping Cough.—

- R Tinct. belladonnæ, ʒ ij.
Phenacetin, ʒ iij.
Spts. frumenti (q. s. solve phenacetin), ʒ i.
Fld. ext. castaneæ, ʒ vi.

M. S. Teaspoonful every three hours until the face flushed; then every three, four, or six hours, as needed to control the cough, in a child of six years.

—*DR. R. A. LANCASTER, Florida Health News, December, 1898.*

Whooping-Cough.—

- R Tinct. belladonnæ, ʒ ij.
Phenacetin, ʒ iij.
Spts. frumenti (q. s. solve phenacetin), ʒ i.
Fld. ext. castaneæ, ʒ vi.

M. S. Teaspoonful every three hours until the face flushes; then every three, four, or six hours, as needed to control the cough, in a child of six years.

—*DR. R. A. LANCASTER, Florida Health.*

A NEW TABLET

By all druggists or sent by mail on receipt of \$1.00.

WM. R. WARNER & CO'S

Nervitone Tablets

(Trade Mark)

R	Phosphorus,	1-100 gr.
	Ferri Carb.	1½ grs.
	Asafetida,	½ gr.
	Ext. Sumbul,	½ gr.
	Ext. Nux Vomica,	1-10 gr.

Dose—2 tablets before meals for adults.

TAKE NO SUBSTITUTE.

PHOSPHORUS "It exists mainly in the nervous centers in the form of a peculiar compound with fatty matter, which has been named 'protagon' just as iron is united with haematin in the blood. It forms more than one per cent of the human brain."—Hughes

Phosphorus is a stimulating nerve tonic, and in suitable cases a true tissue food in every sense of the word.

IRON is added for its general tonic effect and for its action on the blood, which is generally impoverished in the conditions just mentioned.

ASAFETIDA has been proven of value in nervous irritability, and is a stimulant to the alimentary tract.

EXT. SUMBUL The following has been written of Sumbul. "On the nervous system Sumbul acts as an efficient nerve tonic."

EXT. NUX VOMICA A bitter tonic, universally used for its influence on the nervous system.

By glancing at the above it will be seen that in Nervitone tablets we offer a combination of well-known nerve tonics and stimulants. It is a tablet that will cover a wide field of usefulness in physicians' prescribing. When the indications are for a prescription to correct conditions due to asthenia, neurasthenia or nerve exhaustion, whether the result of debilitating diseases or excesses, we have in Nervitone tablets a remedy which will give satisfactory results.

The drugs used in the manufacture of this pill are pure and active.

Specify Warner & Co. to obtain satisfactory therapeutic effect.

SUPERIOR TO PEPSIN OF THE HOG
INGLUVIN
A Powder—Prescribed in the same manner, doses and combinations as pepsin.
A SPECIFIC FOR VOMITING IN GESTATION IN DOSES OF 10 to 20 Grains.

WM. R. WARNER & CO. 1228 Market St., Philadelphia.

New York.

Chicago.

London.

When writing, mention the N. C. Medical Journal.

12

Reading Notices.

BETTER STILL—The influenza has been quite prevalent in a number of cities during the past month. In Richmond, there have been many cases, though no deaths distinctly attributed to it. It is affecting mostly those who have had the disease almost annually during the past few years. Although the attacks of this year are relatively mild, they are severe enough to keep business men away from their places of business. Phenacetin, or better still, antikamnia, with salol or quinia, and a little powdered digitalis added, has proved a satisfactory plan of treatment, presupposing, of course, that the bowels are kept open, the secretions of internal organs are attended to, and that the patient is kept in-doors, especially at night or in bad weather.—*The Virginia Medical Semi-Monthly*.

ACTION AND USES OF HEROIN.—*Med. Review of Reviews*.—A writer in *Weinor Med. Battles*, 1899 says that Heroin dissolves readily in acidulated solutions from which it is precipitated by alkalis. It is derived from morphine by replacing the H of both hydroxyl groups with acetyl groups. It is a substitute for morphine and codine, is free from the unpleasant collateral action of the latter substances and may be given in smaller doses. Its most characteristic action is upon the respiration, for by neutralizing air-hunger to some degree it will be found of great value in dyspnoea, especially when due to phthisis and bronchitis. Given in doses of from one sixteenth to one eighth of a grain, a sedative action upon the respiration is perceived within an hour. Cough, if present, is soothed, and sleep soon sets in. Heroin may be given in doses of one sixteenth to one eighth grain three or four times daily.

CASE 1.—M. S., fifty-two years of age, male, was some years afflicted with an obstinate form of erythema, probably of specific origin, which heretofore had resisted the usual constitutional and local treatments. The itching of the eruption was intolerable, the anæmia very pronounced—the whole constitution run down. Six weeks medication with Iodia, supplemented by extract of malt and cod liver oil, brought the case under control. I attribute the good effects of Iodia in this, as in other cases, not so much to its mineral ingredients (potass. iodide and ferri phosphate) as to their combination with the fresh principles of vegetable alteratives. I, for my part, believe that only the extracts of the green or fresh plants are reliable for therapeutic effects, the common fluid extracts of the dried plants having proven mostly inert in my hands.

Case 2.—R. W., aet. 38, female, presented glandular enlargements complicated with functional disorders (dysmenorrhœæ). The persistent administration of Iodia brought marked improvement and patient is on a fair way to recovery.

Case 3.—J. P., male, aet. 60, blood poisoning with chemicals used for dyeing, manifesting itself in a rupia-like eruption and general malaise. Iodia promptly eliminated the morbid matter.

Allegheny, Pa.

A. ZIEGLER, M. D.

To Prevent Surgical Shock.—If you expect to get much shock from an operation, remember that here again prevention is better than cure. Use a little morphine before operating to quiet the nervous system, keep the patient very warm before and during the operation, as well as after operation. Small doses of strychnine before the operation are also indicated.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIII.

CHARLOTTE, APRIL 5, 1899.

No. 7

Original Communications.

Empyema—Its Diagnosis and Treatment.*

By C. D. HILL, A. B., M. D.

Surgeon to St. Francis Hospital, Jersey City, N. J.

CASE I.

ON November 18th, 1897, was called to see Patrick B., age 8 years, who had been sick about 24 hours, suffering from nausea, vomiting and abdominal cramps. Temperature was $102\frac{1}{2}$, pulse 120, and respirations 24. There was slight pain in right side, but physical examination showed nothing definite till about 30 hours afterward, when diagnosis of pneumonia was made. The consolidated area was limited to the lower lobe of the right lung. There were no unusual features about the case; the patient was discharged convalescent in eight days, at which time resolution was taking place, and there were no indications that there would be any delay in the restitution, or that any complication would arise.

On the evening of December 11th, was called to see another member of the family, and, on questioning the mother as to Patrick's condition, found that she thought he was well, but that for the past four or five nights he seemed to have fever. His temperature was taken and found to be 102, pulse 124 and respirations 26, and the physical signs pointed to right Empyema. This was verified by introduction of needle and withdrawal of pus. On December 16th Thoracotomy was done under chloroform anaesthesia. An incision, three inches long, was made in the 7th intercostal space and posterior axillary line, and about 12 ounces of so-called laudable pus evacuated. With the movements of respiration the pus was forced out in intermittent jets, after the first gush, showing some expansion of the lung. Two fenestrated medium sized rubber drainage tubes were introduced about two inches within the cavity. Two ligatures of silk worm gut approximated the skin, and a third ligature, of same material, was passed through one of these and through the drainage tubes. A copious antiseptic dressing was applied, which

*Read before the St. Francis Hospital Medical Society, February 1st, 1899.

was changed daily for the first eight days. The temperature dropped to normal soon after the operation and his condition steadily improved. The cavity was irrigated for the first five days after the day of the operation with warm boracic acid solution. The drainage tubes were gradually shortened and on the 12th day, on account of the discharge becoming serous and small in quantity, were dispensed with. About four days later the opening closed, and the physical signs showed but little difference in the two sides of the chest. The patient was instructed in pulmonary gymnastics, and when I examined him again on January 13th—27 days after the operation—the affected side had returned to the normal condition, and there was only a small scar left to tell the tale.

CASE II.

Frederick H., age 15 years, was admitted to Surgical wards of St. Francis Hospital April 19th, 1897. He gave the history of having been sick about two months, first with pneumonia in left side and then with an illness which confined him to bed. On entrance to hospital his general condition was poor, and there were evidences of great emaciation and loss of strength. His evening temperature was 104, pulse 130 and weak. Physical examination and introduction of the needle showed left empyema. There was also marked lateral curvature of the spine. On the following day, under ether anaesthesia, thoracoplasty was performed. Just below the inferior angle of the scapula an incision, 4 inches long, was made through the skin, soft parts, and periosteum down to the 8th rib. The periosteum was stripped from the rib in front and behind, the rib was elevated, and one and one-half inches resected with the bone forceps. The incision was continued through the gutter in the periosteum and into the pleural cavity, when about 16 ounces of pus was evacuated. The pus was somewhat offensive, but not so fetid as we see in some cases. Drainage tubes were introduced and held in place by safety pins.

The after treatment was similar to that in Case I, though of much longer duration, and the improvement much slower. About three weeks after operation and evening temperature arose above 103, and patient had hectic appearance. Dressing forceps was introduced and the cavity explored, as another pus pocket was suspected, but none was found. As the drainage seemed to be insufficient longer tubes were introduced. The temperature gradually dropped to normal and the patient slowly but steadily improved. He left the Hospital June 1st with a discharging sinus which did not close till about two months later. I saw this patient about ten days ago. He now weighs 150 pounds, and is strong and robust. The respiratory sounds are normal over the old empyema. At the site of the operation is a depressed cicatrix showing adhesion of the soft parts to rib. The bone is reproduced; only a slight lateral curvature of spine can be noticed.

These two cases will, I think, be sufficient to bring out the principal points I wish to make in the diagnosis and treatment of pyothorax.

In looking up the etiology of empyema, I find that it is very rarely primary, but that in 95 per cent. of cases it is secondary to lobar pneumonia,

as in the two cases mentioned. So, to begin with, it should be diagnosed from pneumonia, and especially the so-called unresolved pneumonia. Later, under treatment, we shall find that this diagnosis should be made as soon as possible. When we call to mind the pathological conditions in the two diseases, and recall the physico-dynamics of the chest wall and the organs within, it would seem easy to make a tabulated statement of the diagnosis between empyema and pneumonia. Under the column Empyema we would place as the most diagnostic physical signs the following: Enlargement of the affected side, bulging of the intercostal spaces, displacement of cardiac impulse diminished or absence of movements in respiration, loss of vocal fremitus, loss of respiratory and vocal sounds, and on percussion marked dullness or flatness. In our pneumonia column we would place quite a different list. Diagnostic tables apply only to typical cases, the kind we do not always meet in practice. But we have a means, and the only means, of establishing our diagnosis; and, while, I would not have you neglect the physical examination in all its details, nor discard the symptoms and history of the case, it is upon the needle we must depend to make a positive diagnosis of pus in the pleural cavity. Furthermore, it was by the introduction of the needle in Case I., and the ocular demonstration of pus, that enabled me to overcome the prejudice of the parent to the use of the knife. It was the sight (and smell) of pus that helped him to give up painting and repainting the chest with tincture of iodine, which proceeding was authorized by another physician, who saw the case in his office, but for some reason did not introduce the needle. Would that time and the gravity of my subject permit me to apostrophize on that wonderful and mysterious drug, iodine, which has absorbed many swamps of ignorance, but few drops of pus. We will not always, on the first introduction of the needle withdraw pus; it may be too thick to flow out, or the point of the needle may not reach the pus cavity. But if the physical signs bear us out, we will try again and again, with different sized needles and in different positions. Holt mentions a case in which he did not demonstrate pus till the seventh puncture; Ripley, a case where only after the twelfth puncture was pus found, and then he evacuated 120 ounces.

It is only by the use of the needle that we can diagnose a serous from a purulent Pleurisy. This was impressed forcibly on my mind about four months ago in the case of a man 24 years old, whom I found with the signs of fluid in the pleural cavity. The constitutional symptoms were so severe and the improvement so slow, I suspected the fluid might be pus instead of serum, but the needle, when introduced on two occasions and in different positions, showed it was serous. Without the aid of the needle we could not positively diagnose empyema from the following: An old thickened pleura, tubercular consolidation of the lower lobe of the lung, and tumors of organs adjoining the pleural cavity.

So, to make a long story short, our diagnosis of empyema should be established by the introduction of the needle. If the needle and the site of

the introduction are made aseptic, we need fear not. It is best to introduce the needle at a point where we expect to operate.

This brings us to the Treatment of pus in the pleural cavity.

I look upon empyema as a surgical disease and should be treated by the free use of a knife as soon as a diagnosis is made. Senn says "An empyema is nothing more than an abscess in the pleural cavity and should be treated as such." Osler says "It is really a surgical affection," and further on "It is sad to think of the number of lives which are sacrificed annually by the failure to recognize that empyema should be treated as an ordinary abscess, by free incision." The objects to be accomplished are to evacuate the pus, establish drainage, and the retracted lung a chance to expand, for it is by expansion of the lung that a complete cure is effected.

As in other pathological conditions nature does wonders, so in empyema a very, very, small proportion of cases get well without the aid of the surgeon. The pus may perforate a bronchial tube, or it may perforate the outer chest wall, or at least present under the skin and beckon to the attendant and say "cease poulticing, and come and open me." But these terminations are very rare, and we should strive to make them still rarer, for at best the cure is very slow and often taxes the patient's strength to the uttermost.

I have had no personal experience with aspiration of the pus in pyothorax as a means of cure, but it seems unsurgical, and should never be done except where you cannot get consent to do the proper operation.

There has been a great deal of discussion as to whether it is better to make a simple incision in the intercostal space, or to go further and make a resection of one or more ribs. Some surgeons perform thoracotomy, others thoracoplasty in all their cases. Senn says "resection should always be done in empyema." Carl Beck says that during 11 years he treated 134 cases by resection of one or more ribs. Goodlee says he removes a piece of rib as a routine practice with very few exceptions. Other surgeons, and perhaps the majority, rarely ever resect a portion of the rib, but instead perform thoracotomy. The main object to be accomplished is to establish and maintain drainage, and, if we can accomplish this by simple incision, I see no reason to do more, even though Senn says, "Resection of such a small portion of the rib does not add to the gravity of the operation." On the other hand, if we cannot accomplish thorough drainage for any reason, for example, if the intercostal space is small and the rib would press on the drainage tube, then we should resect a portion of the rib. We often have to do this in old and neglected cases, and occasionally after operation by incision, where the lungs do not expand, and consequently the chest wall begins to sink in, the rib thereby pressing on the drainage tube. In Case I the ribs were small, the intercostal spaces wide, the case of short duration, and hence simple incision was deemed sufficient, and this proved true. On the other hand Case II was of longer duration, there were consequently more adhesions around the retracted lung, which prevented it from expan-

sion, and, when we contrast the history of the two cases after the operation, incision alone would not have been sufficient. This difference in the after history was certainly not due to the operation of resection itself, for even with resection, the drainage was not entirely satisfactory. So, while each case should be treated on its own merits, the rule should be to reserve old and neglected cases for resection.

Though it is much more satisfactory to use general anaesthesia for either operation, for incision without resection we may use local anaesthesia, if there is any contraindication to the use of chloroform or ether.

Where we have a choice of the site of the operation, we should select a point a little external to the inferior angle of the scapula and in the 7th or 8th intercostal space, and if we resect, we should take out a portion of the 8th rib. Here we get better drainage than if we go higher up, and if we go lower down we may puncture the diaphragm.

I will not detail more of the technique of the operations for incision or resection than mentioned under narration of the two cases. In operations for pyothorax the strictest antisepsis should be carried out, for it will not help our patient if an acute sepsis is added to the chronic poisoning of the pneumococcus.

Rubber drainage tubes should be used, as we can better adapt them to the pus cavity than could be accomplished by metal tubes, and furthermore, they do not cause so much after pain, nor are they so apt to injure the lung. Rubber tubes drain out the pus, especially if thick, better than strips or wicks of gauze, and are easier to introduce and withdraw. Occasionally we may have to make a counter opening and draw the drainage tube through. I have thought since this would have been better in Case II.

In double empyema it is best to operate on one side and probably aspirate the other, and in three or four days operate on the aspirated side.

Sometimes after incision or after resection, especially in old and long standing cases, we will not effect a cure, but will still have a chronically discharging cavity. In such a case, on account of adhesions to the lungs, or thickened pleura, or, perhaps, loss of elasticity of the tissue of the long retracted lung, the lung does not expand. Hence we make an effort to cause the outer chest wall to sink into the unexpanded lung, and thus obliterate the cavity. This is the object of Estländer's operation, which consists in resection of from two to four inches of several ribs, or as many as bound the pus cavity.

As a substitute for Estländer's operation, and with the same object in view, Schede has proposed, not only to resect the ribs, but all the soft parts, in fact, the whole of the outer chest wall except the skin. Over this veritable window in the chest he places the skin flap.

The after treatment of operated cases of empyema consists of daily dressings, and, if the pus is fetid, irrigations. It is a matter of individual opinion as to advisability of irrigations if the pus is not fetid. It is best not

to wash out the cavity at the time of operation as this has caused sudden collapse.

We heal the pus cavity, not from the bottom, as in an ordinary abscess, but principally by causing expansion of the lung. Hence the patient should be instructed to systematically make forcible inspirations and expirations. If a child you can also tell him to blow horns, etc., as was done in Case I; if something more elaborate and impressive, for an adult, if desired, you may construct an apparatus consisting of bottles filled with water and connected by tubes; with this arrangement, which Oslen says, is largely used in Johns Hopkins Hospital, the patient by forced expiration displaces the water from one bottle to the other.

To sum up my conclusions, for the diagnosis use the needle; for treatment make incision, or if necessary, incision plus resection, for after treatment use rubber drainage tubes, and promote lung expansion.

The Duration of Acute Gonorrhea and the Importance of Treatment.*

By H. T. BASS, M. D., Tarboro, N. C.

GENTLEMEN, I do not propose to try to offer anything new on the subject of my paper to this body; but I do want to impress upon our mind the importance of paying due attention to this disease, and correcting an impression which seems to me to be somewhat general among the laity, and it is also in the profession—that Gonorrhea is an insignificant disease and is no worse than a bad cold, as the expression is. The subject of this paper was suggested to my mind by a remark made by a patient in my office, that a friend of his advised him that the clap was not anything, and that Dr. So-and-So guaranteed to cure it within ten days. I told him he had better go, that it would take me longer than that. Then I began to look up the subject and found that all good authors and writers on the subject put the duration under the best and persistent treatment on an average of six to eight weeks, and I also found the impression prevalent among the general practitioners to be about three weeks. As the best authors do not claim such good results in their cases, it is very evident to me that many, if not all, of those rapid cures, must be of rather doubtful character to say the least. I would not be understood as questioning the honesty and good faith of those claiming to cure gonorrhea in three weeks. There can be no doubt that these gentlemen and their patients are sincere in their belief that their cases are cured, because the pain of urinating is gone, or nearly gone, and they have no discharge, or nothing more than a thin watery discharge, or a morning drop before or after urinating. Now, as a matter of fact, the great majority of these cases are not cured, although the physician and patient are both delighted over the presumed success of the "sure and quick" remedy, and are perfectly honest in assuring such to be the case.

*Presented to The Seaboard Medical Society at Wilson, N. C., Jany. 12th 1899.

It seems to me that the greatest trouble and the cause of much misunderstanding lies in the fact that the average general physician does not take the trouble to use the means of determining when a case of gonorrhea is really cured. Absence of discharge at the meatus too often means to him a cure of the disease. No examination of the urine for clap-shreds is made and very little attention seems to be generally given to the importance of such examinations. I follow the examination taught at the University of Pennsylvania, and the Philadelphia Polyclinic in the Genitourinary Department. I ask my patient not to urinate for some time before he comes to me. Take two clean glasses and let him urinate part of his urine in one glass, and then part in the other, and if clap-shreds appear in the first glass, I know my patient has anterior urethral trouble, and if they appear in the last glass, he has posterior trouble and often it will take some effort for the posterior constrictor muscles to force the clap-shreds out, and if not satisfied with the appearance of the shreds, I strain them with methyl blue and put them under the microscope and there the telltale germs will often be seen. Often the constrictor muscles will force the germs into the bladder. We, as general practitioners, often see the result of a neglected and badly treated case of clap in the shape of strictures of the urethra that often make the individual miserable for life, and a source of annoyance to the physician.

If what our gynecological brethren claim in regard to the longevity and the depredations of the gonococcus be true, it would seem to me to be a matter of the utmost importance that we, as general practitioners, should do all in our power to correct this widespread notion that gonorrhea is a simple disease, easily cured in from ten days to three weeks, provided Dr. A. or Dr. B. is consulted. For my part, I believe with Taylor, Christian, White, Martain, and others that I have consulted, that gonorrhea may be, and very often is, one of the most formidable diseases that can attack man.

What, then, is the duration of acute, uncomplicated gonorrhea? Finger states that cases of acute general urethritis with no unusual symptoms last from five to six weeks. He allows two weeks for the increasing stage, one for the stationary, and two or three weeks for the mucous terminal period. He also states that cases with short incubation and rapid onset do not last as long, all things being equal, as those with a long period of incubation. Prof. R. W. Taylor says a patient should consider himself very lucky to be cured in from six to eight weeks. Keys places the average duration at four to six weeks.

Brewer makes a striking statement regarding this matter (in Morrow's system of Genito-Urinary surgery.) Referring to an article written by himself upon the rapid cures made in a series of cases by the use of bi-chloride of mercury, he states as follows: "Experience in the treatment of urethral diseases has taught me that the simple cessation of a discharge by no means indicates a cure of the disease; and I am prepared to say without the slightest hesitation, that it is my belief that had a careful and thorough examination been made in each instance at the time when I reported the cessation of

all discharge, not one case of my three series of cases would have failed to show unmistakable evidence of an uncured urethritis." White and Martain give the duration at from six to eight weeks.

Prof. H. H. Christian, of the Philadelphia Polyclinic, read a paper before the American Genito-Urinary Association, at Atlantic City, in which he gave the statistics of 187 cases, which he divided into two classes—those that had a clap for the first time, 117 cases, and 70 cases that had the disease for the second time or oftener. Of the 117 cases 90 had general urethritis and the discharge persisted for over four weeks in 79 of the 117 cases and 47 of these 79 were under treatment from seven to ten weeks. In his second series of 70 cases with a history of having had gonorrhea one or more times before, by their own statement they were under treatment during their former attack; fourteen for four weeks, twenty for eight weeks, and twenty for eight to ten weeks. I only take that part of the statistics that was under treatment for four weeks or over; they constitute the greater number of the cases. All of these were under treatment at the dispensary of the University of Pennsylvania, where the statistics were compiled, and during their second or third attack, as the case may be, ten were under treatment for four weeks. He considers the second series of 70 cases of importance, because 40 of them were under treatment by their own statement in former attack from eight to ten weeks, and 42 of them were under treatment at the dispensary during this attack from four to ten weeks. He sums up by saying that of the 187 cases of acute gonorrhea, 17 remained under treatment and he believed carried out the treatment faithfully until they were pronounced cured. Of the remainder, 170 cases, 121 were under treatment from four to ten weeks, but he does not seem to be certain of their good deportment. The record of the 17 cases he considers the most important because they were composed of medical and dental students, and married men who were anxious to get well and stayed under treatment until they were pronounced cured, and abstained from all indiscretion, and each case was considered cured when the urine contained no clap-shreds with pus and gonococi. The length of time required to cure these 17 cases was as follows: three cases in four weeks, three cases in six weeks, two cases in seven weeks, four cases in eight weeks, and five cases in ten weeks. Three of these had anterior and fourteen general urethritis, and the duration was over six weeks in eleven cases. I have a record of two cases of general urethritis recently treated, one by the hand syringe method at his home, and internal medicine, that lasted twelve weeks, and the other by the irrigation method at my office twice a day combined with internal treatment, that lasted eight weeks, and I believe these cases abstained from all indiscretions.

The diagnosis and cause of gonorrhea does not enter into this paper, as we are all familiar with the fact that it is like the poor, "we have it with us always," it is also a fact, if the statement of the gynecologist be true, that over fifty per cent. of his cases are the result of gonorrhea, that we, as general practitioners, are feeding their tables by not more fully impressing on

our patients the gravity of their trouble and the importance of staying under treatment until they are well.

Under treatment which hardly comes under the heading of my paper, I would like to call your attention to the innumerable drugs and plans of treatment so highly extolled in the eulogistic articles of our weekly journals, all claiming to cure gonorrhea in from two to three weeks. Methods claiming to cure in six to eight weeks are not in vogue, and are therefore, not published, but the newspapers are full of the praise of Big G—and similar nostrums, and what they can do in from two to three weeks. The philosophy of most of these quick cures is based, as a rule, upon the early employment of some strong astringent injection, causing, as pointed out by Taylor, a rapid and early onset of the mucous terminal period of the disease, the chief characteristic of which is a thin watery discharge which might readily pass unnoticed by a careless or unobservant patient.

I have nothing new in treatment to offer to this body. There are four methods employed; 1st, internal medication, alone; 2nd, internal treatments combined with a hand injection; 3rd, irrigation of the urethra, alone; 4th, irrigation combined with internal treatment. I prefer the fourth mode, irrigation and internal treatment. I irrigate with permanganate of potassium, 1 to 4,000 increasing gradually every two or three days until I reach 1 to 1,000 or 1 to 500 in about two weeks, and I then give a hand syringe with a solution of some mineral astringent such as sulphate of zinc or acetate of lead, two to three grains to the ounce of water. Internally I give first a saline diuretic for eight to ten days and then balsam of copaiba and oil of sandalwood, or some remedy of that class until the case is well. I really prefer nitrate of silver, 1 to 6,000, increased to 1 to 1,000, but owing to its staining properties, it is disagreeable to the patient. Also, in my section of the country, the water is full of chlorides, and so few of our druggists use distilled water, that the silver is decomposed in the water and ruined.

In closing I will say that I have tried to impress three things upon this body by the statistics I have given.

First.—That gonorrhea is a more prolonged and serious affection than it is usually considered by the general practitioner and by the laity.

Second.—That the period of time for a cure in uncomplicated general gonorrhea is from six to eight weeks.

Third.—The importance of making an examination of the urine for clap shreds before deciding that a case of gonorrhea is cured.

To Remove Nitrate of Silver Stains.—The *National Druggist* recommends the following: Dissolve fifteen parts of iodide of potassium in fifty parts of water, and to the solution add ten parts of iodine. When the latter is dissolved add sufficient water to make five hundred parts. Keep in a well-stopped bottle. Treat the spots with this, and after a few minutes with a ten per cent. solution of caustic soda, which will remove the silver iodide formed by the first treatment.

The Care of the Sick and Wounded in the War of the Revolution.*

BY FRANCIS R. PACKARD, M. D., PHILADELPHIA, PA.
Late Assistant Surgeon, 2nd Penn. Vol. Inf.

DR. NORRIS ⁶ quotes the following statement from *Towne's Pennsylvania Evening Post*, No. 342, for April 22nd, 1777 :

"BOSTON, April 10th, 1777.

"On Monday arrived Dr. John Morgan, late Director-General of the Hospital, and Physician-in-Chief to the Continental Army. He has been informed that several evil-minded persons have taken upon them to circulate a number of false and groundless reports in this place, with a view to injure his reputation in that public station, and amongst other particulars, has learned that loud clamors have been industriously raised against his having taken possession of the medicines, shop-furniture and laboratory of Dr. Sylvester Gardiner and Dr. William Perkins, of this town, for the use of the army; and likewise, that many of the sufferings of the sick in the last campaign arose from his having unjustly withheld from them (or from their regimental surgeons) those stores which they were entitled to draw from the general hospital, suggesting, in the first instance, that his motives for so doing was his private emolument, in the latter, to oblige the sick to be sent to the general hospital, that he might stop their rations whilst there, and put the money in his pocket. As these reports do not merely affect private character, but concerns the public to know the truth thereof, he hopes for their indulgence in making it known in a newspaper, that he has called on the persons pointed out to him for more particular information of the grounds of these reports, and means to lay the matter of his inquiry before the public.

"That the necessary information to clear up this matter may not be kept back, he does hereby publicly advertise, that if there are any persons who can pretend to a knowledge of these facts, who will take upon them to answer the charge, he now writes them to step forth and state their accusation against him in either of these particulars, or any other that regards the faithful discharge of his public trust, so that the said facts may be properly ascertained and examined. In return, he undertakes to lay before the public a faithful and exact account of every proceeding they require relative to the discharge of his duty in the above station, by which the world will be enabled to judge whether any of the charges are well founded, or only proceed from a spirit of malignity and detraction."

Doctor Morgan published many notices in newspapers in different parts of the country inviting any one who had charges to make against him to come forward and prefer them.

The congressional committee after a careful investigation completely exonerated Doctor Morgan from the charges brought against him, their resolutions to that effect being placed upon the minutes on June 12, 1779.

*An address delivered before the Judson Deland Medical Society, January 8th, 1899.
⁶ Early History of Medicine in Philadelphia.

On April 11th, 1777, Doctor William Shippen, Jr., was appointed Doctor Morgan's successor as Director-General and Physician-in-Chief of the hospital. He was likewise a Philadelphian. He had graduated at Princeton College, or as it was then known the College of New Jersey, in 1754, had studied medicine for three years in his father's office, and had then spent five years pursuing his medical studies abroad, during which time he was made an M. D. by the University of Edinburgh. He was the colleague of Dr. Morgan in the founding of the medical department of the University of Pennsylvania, and delivered the first course of lectures on Midwifery ever given in this country. Doctor Shippen was an active, alert, and conscientious man, and he was determined to maintain the high standard in his department which had been inaugurated by his predecessor. Congress also appointed the following medical officers at the same time as Doctor Shippen, to the different divisions of the army.

In the Middle Department, Doctor John Cochran was made Physician and Surgeon-General, with Doctor Walter Jones as Physician General, and Doctor Benjamin Rush as Surgeon General. In the Eastern Department, Doctor Isaac Foster was appointed as Deputy Director-General, with Doctor William Burnett as Physician and Surgeon-General, and Doctor Ammi Ruhamah Cutter as Physician-General, and Doctor Phillip Turner as Surgeon-General. In the Northern Department Doctor Jonathan Potts was appointed Deputy Director-General, with Doctor John Bartlett as Physician and Surgeon-General, and Doctor Maladie Treat as Physician-General, and Doctor Forgue as Surgeon-General.

Doctor William Shippen, Jr., held the office of Director-General and Physician-in-Chief of the hospital until January, 1781, when he resigned. His successor was Doctor John Cochran, who was a native of Chester County, Pennsylvania, and had served with great credit as an army surgeon in the colonial wars between the English and French. During the Revolution he had held many important positions and had won the high personal regard of General Washington. He continued to discharge the duties of his position in the most satisfactory manner until the war was over.

We are all familiar with the terrible privations undergone by the Continental soldiers owing to the poverty of the Revolutionist's treasury, but I think nothing can bring their sufferings more forcibly to our minds than the fearful scarcity of medical supplies for the army, which existed throughout the struggle.

Norris, ⁷ in this connection, refers to a general order issued from headquarters in 1776 requiring all regimental surgeons to forward a report to the Director-General of the Hospital of the medical supplies which they had. Fifteen regiments responded to the order. All the instruments possessed by the surgeons and mates of these regiments and being used by them in the public service, were their own personal property, and they amounted to the

⁷ Early History of Medicine in Phila.

following, viz.: six amputating sets, two trephining sets, fifteen pocket-cases, seventy-five crooked needles, and six straight needles.

These gentlemen could also raise among themselves besides the above enumerated instruments, four scalpels, three pairs of bullet forceps, half a paper and seventy pins, a very few ligatures, tourniquets, and bandages, and two ounces of sponge.

Doctor Norris quotes a number of most interesting extracts from letters which he had had the opportunity of reading which bear upon the same point. Thus Doctor Binney, of the general hospital was sent from the army in New York to Philadelphia to purchase some urgently needed surgical instruments. But he reported, "that there was no instruments to be purchased at any rate, and that the only workmen in the city that could make surgeons' instruments was engaged by Congress upon arms, and could not undertake any work for a long time to come."

Doctor James Hutchinson wrote "that during the winter of 1778 there were such a want of lancets, that numbers of the regimental surgeons, and some of those of the flying hospital were without one."

The British troops evacuated Boston on March 14, 1776, and hostile operations were then transferred to other localities. The northern portion of the State of New York became the theatre of much fighting, and in July, 1776, a hospital was established in the city of Albany for the reception of the sick and wounded of the American army. Doctor Thacher was assigned to service at this hospital, and has left us a most interesting account of various incidents which occurred during his tour of duty. The hospital was located in a building which had been used for the same purpose in the wars between the English and French. It had two stories with a wing at either end, and a piazza in front, and could accommodate 500 patients. It was pretty well filled up after the battle of Crown Point and Fort Ticonderoga. On October, 24, 1777, *Thacher's Military Journal* contains the following entry:

"This hospital is now crowded with officers and men from the field of battle. Those belonging to the British and Hessian troops, are accommodated in the same hospital with our own men and receive equal care and attention. The foreigners are under the care and management of their own surgeons. I have been present at some of their capital operations and remarked that the English perform with skill and dexterity, but the Germans, with a few exceptions, do no credit to their profession; some of them are the most uncouth and clumsy operators I ever witnessed and appear to be destitute of all sympathy and tenderness towards the suffering patient. Not less than one thousand wounded and sick are now in this city; the Dutch Church and several private houses are occupied as hospitals. We have about thirty surgeons and mates, and all are constantly employed. I am obliged to devote the whole of my time from eight o'clock in the morning to a late hour in the evening, to the care of our patients. Here is a fine field for professional improvement. Amputating limbs, trepaning fractured skulls, and dressing the most formidable wounds, has familiarized my mind to scenes of woe. A

military hospital is peculiarly calculated to afford example for profitable contemplation and to interest our sympathy and commiseration."

Other hospitals for the continental troops during hostilities in this region were established at Peekskill and Fishkill on the Hudson. They were well crowded at several times during their existence as the fighting in their neighborhood was on occasions very severe. There was another hospital at Fort George and a letter from Doctor Jonathan Potts to Doctor John Morgan, which is given in full by Doctor Norris. (Loc. cit), contains the following in regard to the scarcity of the necessary supplies in it.

FORT GEORGE, AUGUST 10TH, 1776.

"The distressed situation of the sick here is not to be described, without clothing, without bedding, or a shelter sufficient to screen them from the weather. I am sure you know humanity will be affected, when I tell you we have at present upwards of 1,000 sick, and crowded into sheds, and labouring under the various and cruel disorders of Dysenteries, Bilious Putrid Fevers, and the effects of a confluent Smallpox; to attend this large number, we have four seniors and four mates, exclusive of myself, and our little shop doth not afford a grain of Jalap, Ipecac, Bark, Salts, Opium, and sundry other capital articles, and nothing of the kind is to be had in this quarter; in this dilemma, our inventions are exhausted for succedaneums, but we shall go on doing the best we can in hopes of a speedy supply. Dr. Stringer left us some days since in order to lay the situation of the hospital before his excellency General Washington, and endeavor to procure redress."

"Connecticut had a large general military hospital at Stamford, in charge of Doctor Phillip Turner. Many of those wounded in the campaigns in New York, or who became sick from the hardships undergone during them, were sent to the Connecticut hospital for treatment. This State also very early established a convalescent hospital for such of her soldiers as might return to their native State before fully recovering from their wounds or illness. I have been unable to learn much concerning the establishment of any hospitals in New Jersey. After the battles of Brandywine and Red-bank and the numerous minor engagements which took place in Pennsylvania and New Jersey at that time, a general hospital was established at Princeton, New Jersey, of which Doctor James Filton, who subsequently during the war of 1812 was Physician and Surgeon General of the United States army, was in charge. He tells us ⁸ how the promiscuous mixing of a large number of sick with the wounded men in this hospital resulted in an outbreak of jail fever, of which he himself became a victim and only recovered after a severe illness."

In the course of military events in Pennsylvania and the neighboring States the Pennsylvania Hospital in Philadelphia was at various times used for the reception of the sick and wounded of both the British and American armies. According to Morton⁹ the first reference to the Revolutionary War

⁸ Observations on Military Hospitals.

⁹ History of the Pennsylvania Hospital

which occurs in the records of the hospital is on December 5, 1776, when the Committee of Safety placed a number of sick and wounded soldiers in the wards. On January 8th, 1777, a large number of wounded soldiers, sailors, and Hessians were admitted.

When the English forces occupied Philadelphia on September 26th, 1777, their officers took forcible possession of the hospital for the use of their soldiers, and when they evacuated the city they took with them all the blankets, bedding, and instruments, which they could get their hands on, for which the hospital was never repaid.

In 1778 the Americans were again in possession of the city. On July 22nd, of that year, the managers entered into an agreement with Doctor Jonathan Potts, Deputy Director-General, and Doctor Thomas Bond, Assistant Director-General, of the medical department of the continental army, whereby the Elabratory (afterwards known by the name of the North House, and until torn down in 1896, used as the receiving ward) of the hospital, was turned over to the medical department for use as a pharmacy for the preparation of medicines for the army hospitals.

On September 8th, 1778, the following entry is found on the minutes of the hospital :

"Doctor Bond, Jr., of the Continental Hospitals applied to the Board for admission of a large number of convalescent soldiers, under the direction and management of their physicians and surgeons, to which mode the managers objecting, and upon a free conference, it was proposed to admit from time to time such of them as having passed the usual examination of the attending physicians and sitting managers, may be deemed proper objects; so far as they can be accommodated without prejudice to our own patients, and they being subject to the rules and management established in the house. The soldiers, if admitted, are to be supplied with bedding and provisions, which can be delivered to one steward by their commissaries, their nursing to be paid for as shall hereafter be agreed upon."

It was not always convenient for the managers to receive the large numbers of patients which the military authorities wished them to accommodate. The principles of faith of many of the managers forbade their taking any active part in the contest and there was great reluctance on the part of some of them to even appear in any way to sympathize with those who were in arms against their fellowmen, even in a just cause. Four of the managers; namely, Israel Pemberton, James Pemberton, Thomas Wharton, and Edward Pennington, had undergone exile to Virginia because of their apparent lack of sympathy with the patriot cause.

At a meeting of the board of managers held March 30, 1779, a communication read from J. Melcher requesting accommodation for a number of convalescent soldiers, for whose reception "a reasonable rent" would be paid. The minutes state that "Samuel Rhoades, Edward Pennington, Jos. Swift, and Robt. Strettell Jones were appointed to inform him, that no part of this house can be conveniently spared for the purpose he requires, and that we

had reason given us to expect, when we accommodated the doctors of the Continental Army, with our elabratory, that they would secure us against being further incommoded ; and to use such other arguments as may occur to them, to convince him of the inexpediency and impropriety of his request, which if he does not decline, they are to apply to the General, and such others in power as may be proper to preven the soldiers being sent there." However at another meeting, April 1, 1779, Doctor Bond appeared before the board and submitted another request to the same purport, as follows :

"Doctor Bond, Jr., requests the managers of the Pennsylvania Hospital would receive a number of convalescent patients from the general hospital into theirs, as the Battering House is exceeding crowded, and the prescribing surgeons of the military hospitals has pointed their house as the most proper for their purpose; they and Dr. Bond agree that they shall be under the care of Dr. Story as Steward, but that a military surgeon will prescribe to them; that Doctor Bond will be in town, and hereby engages to do everything in his power to restrain the Soldiery, and prevent their committing damages and behaving irregularly, and the said Bond further promises to do all in his power to remove them totally from thence in six weeks. The lower ward and garret only will suffice."

"Which the managers taking into consideration agree to receive such convalescents as having passed the usual examination of the attending physicians and sitting managers may be deemed proper objects, so far as they can be accommodated in the lower ward and long garret, under the care of their own physicians and surgeons, but subject to the rules and government established in the hospital. The soldiers upon admission are to be supplied free of any expense to the Institution, with bedding, provisions, firewood and all other necessities—their victuals to be cooked by some person appointed by Dr. Bond or his agents for that service, in the wash-house, and that a reasonable compensation be allowed for the use of the house. The managers duly considering the trust reposed in them, apprehend they cannot receive patients upon other terms, no persons afflicted with any infectious distemper, can on any account be admitted, and they are rather induced to acquiesce in this proposal from Dr. Bond's engaging 'to do all in his power to remove them in six weeks.'"

On June 16, 1779, "Dr Bond, Jr., waited upon the Board, and returned thanks for the use of the house for the convalescents of the military hospital and expressed his desire of paying for the same. The managers leave it to the doctors' generosity to make such compensation for the benefit, as he may deem adequate."

In July, 1782, Dr. Bond desired to arrange for the admission to the hospital of a number of Continental soldiers, and also a number of British prisoners, who were sick in the gaol. As among the latter there were cases of contagious disease the board refused to admit any suffering from such a disorder. Doctor Bond "insisted that all the sick must be admitted or none." Finally his proposal was absolutely rejected, as follows: "The board having

maturely considered Dr. Bond's proposal are of opinion they are totally inadmissible, being in direct repugnance to the rules of the institution."

In 1783 the hospital again received a large number of sick Continental soldiers as pay patients.

Christopher Marshall, of Philadelphia, a well-known druggist and much respected member of the Society of Friends of that city, until he was cut off by them because of the active part he took as a patriot in the struggle with Great Britain, was appointed by the Council of Safety of Philadelphia to look after the needs of such sick and wounded as might be brought to that city. In his diary kept all that time he has left us many glimpses of his active work in their behalf. The first time any large number of them was brought to Philadelphia was in December, 1776. He provided for most of them in the Bettering House, as the almshouse was then called.

From an entry in his Diary ¹⁰ for January 14, 1777, it would appear that there was occasionally a little friction between the civilians who were engaged in looking after the wants of the sick and wounded, and the medical officers of the army. He writes: "A number of sick soldiers coming in. Visited to-day by Dr. Shippen, Jr., who being chief physician for the army here, proposed the taking of the sick soldiers from the sundry houses in this city, where they are now placed, into the House of Employment to-morrow. This proposal I communicated to the Council of Safety, (who had requested me to take charge of the sick soldiers about a month past,) in order for their determination, but received no answer this evening, as they were very busy.

"On the 17th of January he writes that the council sent "for answer to us that we should proceed in our appointment as before, without paying any regard to Wm. Shippen's notices, etc., upon which we resumed our former care and regard to the sick soldiers and prisoners."

Twice during the Revolution the little Moravian village of Bethlehem, Pennsylvania, was occupied by the sick and wounded of the Continental Army. My information on this subject is practically entirely derived from a most interesting article by Mr. Jordan of the Historical Society of Pennsylvania, which appeared in the *Pennsylvania Magazine of History and Biography*, for July, 1896.

It is to Mr. Jordan that we owe the most graphic description of a Revolutionary army hospital in our possession, and the mass of information he has sifted out so carefully is of inestimable value.

The first occupancy was from December, 1776, to April, 1777, and occurred when Cornwallis after defeating General Washington in the battle of Long Island, had followed up his victory by pursuing him out of New Jersey. There were over one thousand sick and wounded Americans at Morristown, New Jersey, and it was decided that Bethlehem was the most available place of safety for them. The Moravians were a peaceful sect and great was the disturbance amongst them when Doctor Cornelius Baldwin of the

¹⁰ Edited by William Duane, Philadelphia, 1839.

New Jersey line arrived on December 3, 1776, with the following letter from Doctor Warren :

"To the Committee of the town of Bethlehem, or others whom in may concern.

"GENTLEMEN:—According to his excellency, General Washington's orders the General Hospital of the army is removed to Bethlehem, and you will do the greatest act of humanity by immediately providing proper buildings for their reception, the largest and most capacious will be the most convenient. I doubt not, gentlemen, but you will act upon this occasion as becomes men and Christians. Doctor Baldwin, the gentleman who waits upon you with this, is sent upon the business of providing proper accommodations for the sick; begging therefore that you afford him all possible assistance, I am, gentlemen,

Your most obedient humble servant,

JOHN WARREN,

Gen'l. Hospital Surg'n. and P. T. Director."

In the afternoon of the same day Doctor William Shippen and Doctor Warren also arrived and made the necessary arrangements for the reception of 250 sick soldiers.

Doctor Shippen is quoted as saying that all the patients at Morristown had been ordered to Bethlehem, but since "we had shown such a willingness to provide for them, he would now arrange to quarter the greater number at Easton and Allentown."

The sick began arriving at once and in the most pitiable condition, after their long mid-winter journey in rough-riding wagons. Quarter-master and commissary supplies were not at hand for two or three days subsequent to this influx into the town and the Moravians generously provided for the wants of the suffering. The single brethren vacated their quarters in order to give the soldiers room. The Reverend Mr. Ettwein, of the Brotherhood, should always be held in loving remembrance by Americans for the unselfishness and devoted zeal with which he rendered his services to the sick men. He visited all the sick twice a week, bringing them all the comfort he could in their unfortunate condition. Mr. Ettwein records that there were sixty-two deaths in the hospital during the month of December, most of them attributable to the exposure incident on the removal of the general hospital from Morristown. Throughout this occupancy of the town he places the total number of deaths at one hundred and ten.

In February, 1777, smallpox was brought into the settlement by some soldiers, but the prompt inoculation of forty of the men and some children, saved the place from an epidemic. On the 27th of March, the hospital was ordered transferred to Philadelphia and the order was obeyed as quickly as possible, leaving the gentle Moravians to resume once more their routine, not to say humdrum mode of existence, from which they had been so rudely awakened. There were, however, some among the soldiers too sick to be removed with the rest, among them Colonel Isaac Reed, of the Fourth Vir-

ginia Regiment, who was sent to Philadelphia on June 22nd, 1777, and died in that city a month later, and Doctor John Duffield, who did not leave until July 7th, and is recorded as "the last of the sick attached to the hospital here."

After the battle of Brandywine when it became necessary for the Americans to abandon Philadelphia, the second occupation of Bethlehem as a Continental army hospital occurred. Dr. Shippen sent Doctor Hall Jackson to Bethlehem, where he arrived on Tuesday, September 19, 1777, bearing the following letter to the Rev. Mr. Ettwein :

"My Dear Sir: It gives me pain to be obliged by order of Congress to send my sick and wounded to your peaceable village, but so it is. Your large buildings must be appropriated to their use. We will want room for two thousand at Bethlehem, Easton, Northampton, etc., and you may expect them Saturday or Sunday. I send Dr. Jackson before them, that you may have time to order your affairs in the best manner. These are dreadful times, consequences of unnatural wars. I am truly concerned for your society and wish sincerely this stroke could be averted, but 'tis impossible. I beg Mr. Hasse's assistance. Love and compliments from, my d'r sir,

Your affectionate humble servant,

WILLIAM SHIPPEN, D. G."

Mr. Jordan quotes the Rev. Mr. Ettwein as follows: "Seeing ourselves under the necessity of relieving the distress of the country, we gave orders for the vacation of the Single Brethren's House, and its inmates to be distributed in Nazareth and adjacent settlements. On Saturday we began to realize the extent of the panic that had stricken the inhabitants of the capital, as crowds of civilians as well as men in military life, began to enter the town in the character of fugitives." Among the wounded were Generals Lafayette and Woodford. In a few days the buildings appropriated for hospital use were filled and tents had to be used for those for whom room could not otherwise be found. The army surgeons wished to take for their purposes either the "Sister's" or the "Widow's House," but the Rev. Mr. Ettwein succeeded in having them exempted from seizure.

(TO BE CONTINUED.)

In Philadelphia forty deaths from typhoid fever were recently reported in one week.—*Pennsylvania Medical Journal*.

The Subsidence of the City of San Francisco.—According to the newspapers of San Francisco, that city is sinking into the sea. Surveys made by the city authorities are said to have shown that the average rate of subsidence is two inches a year. The engineers explain the phenomenon by the condition of the ground on which the city is built—sand mixed with decayed vegetable matter extending to a depth of at least sixty feet—and believe that the compression or escape of this soil under the heavy load of buildings which have been placed on it is sufficient to account for the subsidence. Whether the spongy soil settles by compression or escapes into the sea remains to be determined.—*The Sanitarium*.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.

W. H. WAKEFIELD, M. D.

Editors and Proprietors.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.

J. HOWELL WAY, M. D., Waynesville, N. C.

J. ALLISON HODGES, M. D., Richmond, Va.

S. WESTRY BATTLE, M. D., Asheville, N. C.

GEO. G. THOMAS, M. D., Wilmington, N. C.

R. L. PAYNE, M. D., Norfolk, Va.

H. S. LOTT, M. D., Winston, N. C.

J. W. LONG, M. D., Salisbury, N. C.

H. A. ROYSTER, M. D., Raleigh, N. C.

ALBERT ANDERSON, M. D., Wilson, N. C.

J. P. MONROE, M. D., Davidson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

SMALL-POX IN NORTH CAROLINA.

Small-pox prevails at this time in North Carolina to a greater extent than it has in many years. There are as many as fourteen foci of infection, and in some of these the number of cases is almost sufficient to entitle the outbreak to be called epidemic. Year after year the State Board of Health has called attention to the almost criminal lack of vaccination in this State, and urged upon the members of the profession the importance of educating the people in this direction, in the absence of any compulsory laws. Even with such laws it were better that the people be vaccinated voluntarily, and they would, in the large majority of cases, avail themselves of this protection if they were properly advised as to its safety and its benefits. The evil effects of the introduction into the wound of pus or other organisms, with the production of a very sore arm and violent constitutional reaction has the effect of deterring many from being vaccinated, as they would rather wait until the danger of contracting small-pox is right upon them than to undergo the suffering that results in some cases of vaccination.

The producers of vaccine have been using great efforts to avoid contaminating the vaccine with foreign germs, but with the old style of points it has seemed almost impossible to avoid a certain amount of failures. In the tubes of glycerinated lymph, however, the vaccine is as nearly steril as it is possible to render it. As the tubes are hermetically sealed and the virus will thus retain its potency for a much longer period and without the danger of infection, it is probable that these will at once replace the ivory points, being no more expensive. The percentage of successful vaccinations with the

glycerinated lymph is considerably higher than with the points, even of the best makes. There remains, however, the danger of infection from a careless preparation of the arm by the vaccinator, where numerous vaccinations are to be done. Various methods of vaccinating have been suggested, but probably the best is that recommended by Dr. M. B. Hutchins which was published in the *Journal* of July, 20, 1898, and which for the convenience of our readers is reproduced below. With this method and with the glycerinated lymph, we believe that the operation is rendered as free from danger and inconvenience as it is possible to make it.

Dr. Hutchins' method is as follows: The point to be vaccinated is cleansed. A piece of cotton as large as the desired denudation is wet with liquor potassæ and laid on, or a little of the fluid is put on with the bottle stopper. After two or three minutes, or as soon as slight burning is felt—it usually does not burn at all—the cotton is removed, if it was used, and the soap mixture which has formed with the skin secretions is wiped off with a piece of wet cotton, though this is not essential to success, in order to render the next step easier. Then an ink eraser, a toothpick of soft wood, a pencil rubber, a piece of gauze (the quickest) or a piece of damp cotton is used to rub away the the softened epidermis. The friction is slight, the pain is only a little stinging when the sensory nerve filaments become exposed. We obtain, in a few seconds a moist, shining surface, often a clear view of the papillary vessels, but no bleeding. The vaccine is now applied in the usual way.

HYPERPYREXIA.

The taking of a patient's temperature has become so much a matter of necessity with the physicians of to-day, that we sometimes wonder how our forefathers managed to get on without the clinical thermometer. They were doubtless better judges of temperature from the pulse, condition of the skin and general appearance of the patient, to all of which points they paid great attention, than are we who depend entirely upon the thermometer.

Thermometry has been studied in all of its phases, and if in some particulars we have ceased to place the same importance upon it, in matters of prognosis and diagnosis it remains a question of prime necessity for the physicians to study the temperature chart of his cases.

Much interest has always attached to hyperpyrexia, and many of the instances reported of extraordinary rises of temperature have been received with incredulity and more careful examination has sometimes proven that the physician had been imposed upon by his patient. The British "*Medical and Surgical Review of Reviews*" after commenting upon the prevailing skepticism in cases of excessive hyperpyrexia proceeds to quote several instances. The case reported by Mr. John Teale to the Clinical Society of London as long ago as 1875, where a temperature, in a man suffering from spinal injury, of 122° Far. was registered, has often been the subject of comment. In the same society the question of high temperatures has again been

under discussion and "A case of Hyperpyrexia in a Neurotic Woman with Bronchiectasis," was brought before the Society on Nov. 11, by Dr. Newton Pitt. The patient had periodic attacks of dyspnoea with diminution of expectoration lasting for two or three days, when the temperature ran up to 110° or 114° , and was almost always higher in the left than in the right axilla. The rectal temperature was not extreme. For example, the temperature in the right axilla was 102° , in the left 109.7° , and in the mouth 99.4° . Dr. Pitt repudiated the possibility of the temperature having been artificially raised."

It is very difficult to explain a case of this character upon rational grounds and we are not surprised when our English contemporary says that the report of the above record of temperature was received with the usual amount of incredulity by the audience.

NORTH CAROLINA MEDICAL SOCIETY.

The forty-sixth annual meeting of the North Carolina Medical Society will be held in Asheville, beginning on May 30th. The Board of Medical Examiners will meet on Thursday, May 25th, and all applicants for license are urged to present themselves on that day.

The committee of arrangements announce that the society meetings will be held in the ball room at Battery Park Hotel. The railroads will give special rates; tickets will be on sale May 28th to 30th, good until June 14th.

Necrology.

Dr. Wilson S. Temple, of Pasquotank Co., died recently, at the age of 62 years. Dr. Temple graduated from the University of Pa. March 1860. At the breaking out of the war he entered the Confederate Army and filled the position of Hospital Steward, at Wilmington, N. C. At the close of the war he resumed practice and earned a fine reputation.

Dr. A. Holmes, of Clinton, N. C., one of the oldest members of the North Carolina Medical Society, died a few days ago at his home in Clinton.

Drs. Jelks and Holland, editors of the *Hot Springs Medical Journal*, have recently opened the Ozark Sanatorium at Hot Springs, Ark. The institution is fully equipped according to modern ideas and is under competent management.

A few extra copies of this issue of the NORTH CAROLINA MEDICAL JOURNAL are sent to a selected list of physicians who are not subscribers. This issue is a fair sample of the "run of the JOURNAL," but every fourth issue will be larger and devoted to a single subject. We hope you will be pleased with the NORTH CAROLINA MEDICAL JOURNAL, and will place it at once upon your list of journals that merit your subscription.

News and Items.

Influence of the Mind on the Body.—The state of the mind is capable of producing disease; another state of it may effect a cure.—*John Hunter.*

The Prevalence of Cancer:—It is said that in England cancer is responsible for the death of one-twentieth ($\frac{1}{20}$) of all men and one-twelfth ($\frac{1}{12}$) of all women.

Typhoid Fever is prevailing in Newark, N. J. From March 1st to the 18th there were 125 cases reported with 8 deaths. The number of new cases is from 15 to 20 a day.

The Plague in Hong-Kong.—A recrudescence of the bubonic plague is feared in Hong-Kong. During the two weeks ending March 11th there were ten deaths from the disease reported in that city.

Dr. Alexander J. C. Skene has resigned from the presidency of the Long Island College Hospital, with which institution he has been officially connected ever since obtaining his medical degree there in 1863.

Diet in Hyperacidity.—It is not probable that the albuminous diet will be abandoned, but more stress has to be laid upon a milder, less irritating form of administering it.—*Dr. Franz A. R. Jung.*

In Appendicular Abscesses the strangest views of proper treatment obtain. Some men, in their search for a diseased appendix, actually recommend tearing down the protective wall which nature has kindly raised to exclude fatal general peritonitis (Dr. S. C. Graves, "International Journal of Surgery").

Rental of Graves.—The common custom in Porto Rico of renting a plot of ground in the cemetery for a term of years, at the end of which 'time the remains, which may have been interred, are exhumed, thrown promiscuously in a heap in a corner of the cemetery, and the burial plot again hired out, has been forbidden by General Henry, under severe penalties, as a menace to the general health.—*Boston M. & S. Journal.*

Precautions Against Yellow Fever.—Orders have been issued by the surgeon-general of the Marine Hospital service at Washington to the effect that all troop and other ships from Havana and Cienfuegos arriving at southern ports after March 4th shall be fumigated before being permitted to pass the quarantine lines. On and after March 15th the same regulation will apply to all ships from any point whatsoever in Cuba.

The Board of Medical Examiners of the State of North Carolina will meet in Asheville, N. C., on Thursday, May 25th, 1899. Examinations will be held in the Ball Room of the Swannanoa Hotel, and this hotel will be headquarters for the examining board and applicants. Applicants are urged to be promptly on hand at this time to register and prepare for examination on the following day.

THOS. E. ANDERSON, M. D.,

Sec'y Board, Statesville, N. C.

Improvements at Bellevue Hospital.—An effort is to be made to beautify the grounds at Bellevue by improving the lawns, setting out flower-beds, and making cement walks and gravel paths. A new entrance will be opened on Twenty-eighth Street, the wall will be removed, and a macadamized drive will be extended along the water-front.—*Medical Record*.

Paris Exposition.—Many members of the medical profession will be pleased to learn that if they visit Paris with their families next year for the purpose of seeing the famous exposition there will be an American "pension," intended for their especial benefit, at which straight American will be spoken, and they will have an opportunity of meeting with their fellow countrymen. It will be under the charge of Professor Wisner and his wife, who are well and favorably known to many professional men in New York, Cincinnati, and other American cities. They have taken a mansion in the neighborhood of the Bois de Boulogne, and will have it fitted up in such a way as to provide a comfortable home for their guests. Professor Wisner has already made engagements with a number of prominent doctors who intend staying at his establishment, and he would like to hear from others before he leaves for Paris. For the present he may be addressed at No. 605 Madison Avenue, New York.

Ants in Surgery:—The *Pacific Record of Medicine and Surgery* quotes an interesting article from a Paris journal upon this subject. The process is briefly described as follows:

According to the "Entomologist" the Greek barbers of Smyrna apply the ants in the following manner: The edges of the wound having been approximated with the fingers of the left hand, the ant is held by means of pinchers and brought in contact with the wound, which it soon seizes and pierces through and through with its strong mandibulæ, thus holding the lips of the wound in apposition. The barber then severs the head from the body, leaving the former in place. The same process is employed with a number of ants until the entire wound is sutured. The heads are left in place for 4 days, when, if union has occurred, they are removed.

This method is said to have been used in very ancient times and is mentioned in a French work as recent as 1845. Wounds of the intestines are known to have been sutured in this way.

A Rival of the Famous Crowbar Case.—Barritt (*Lancet*, January 7, 1899) gives the details of a case which fairly rivals the famous instance in which a Vermont quarryman, while tamping home a blast, exploded the same and lost one eye, by reason of the crowbar passing clear through his head, entering below his chin and passing out through the frontal bone. He recovered and lived some years in unimpaired vigor, and his skull now adorns the Warren museum in Boston. Barritt's patient was a lad, aged fourteen, who rammed a muzzle-loading gun with a thirty-inch iron rod. The gun was cocked and had a cap on. The jar brought down the hammer, and the ram-rod, which measured $\frac{5}{8}$ inch in diameter at its big end, passed point foremost

into the boy's forehead over his left eye, and out of his left parietal bone. He walked 200 yards to the house, and rode three miles to a hospital. In three weeks his wounds were so far healed that he went home. There was a discharge during convalescence of a thimbleful of bits of gray matter of the brain. The aphasia and partial paralysis of the right arm which followed the accident gradually disappeared.—*Medical News*.

Kipling's Illness.—The following expression of admiration and esteem from the editor of the *Medical News* is, we think, worth fully the space its entire reproduction demands: "For days the English-speaking people of two continents have awaited in almost breathless suspense the issue of the struggle between life and death made by the most popular genius of the end of the century. In the prime of manhood, with all his well-deserved honors falling thick upon him and the promise of a future difficult to fully appreciate, it was sad to think of him stricken down just as he had passed the threshold of his great career. The world has learned to appreciate genius in these days. It is no longer permitted that one should do the great work that is to be honored of posterity in a garret, to express its inspired message amid discouragement and then starve. The thrill of deepest sympathy that has vibrated through Humanity's great heart in two worlds at the prostration of the great young writer whose words have been a revelation to so many is a hopeful sign of the better understanding among men that these latter years are surely bringing with them.

"In the midst of it all the silent, unfailing forces of nature have seemed so heartless and cruel. At a given moment it happens that the material with which is bound up the existence of the beautiful spirit whose emanations have stirred men so deeply becomes a favorable culture-ground for a little plant whose whole sphere of existence is bounded by an infinitesimal portion of almost undifferentiated protoplasm. Implantation takes place, and straight-way natural forces foster the growth of the micro-organism as if it were a favorite child, heartlessly, cruelly, regardless of the fact that that growth is at the expense of material that is informed by one of the brightest spirits to which the world has ever had the privilege of ministering.

"Let us hope that the purpose that runs through all the scheme has ordained the conservation to us poor mortals, for the present at least, of the poetic, truly creative spirit whose subtle magic has cast a spell over us all. We have all admired the magnificent fight he has made for life. As medical men we have been especially touched by the fact that the forces of nature in him unmarred by wanton misuse have reacted for self-preservation in marvelous ways; that a past of pure clean, living has been the basis on which good hopes of recovery could be founded when disease seemed almost inevitably about to triumph. Let us hope the encouraging reports of Mr. Kipling's condition will be followed by others and still more favorable ones, and that he shall be spared to us and to another generation to which in the fulness of his power his words will be even more an inspiration and an illumination than they have been to us. *Ad multos annos.*"

Book Reviews.

Diseases of the Eye.—A Handbook of Ophthalmic Practice for Students and Practitioners, by G. E. DeSchweinitz, A. M., M. D., Professor of Ophthalmology in the Jefferson Medical College; third edition. Handsome royal octavo volume, 700 pages, 256 fine illustrations, 2 chromo-lithographic plates. Cloth, \$4.00; sheep or half morocco, \$5.00 net. W. B. Saunders, 925 Walnut St., Philadelphia, 1899.

The popularity of this work is shown by the rapid exhaustion of the second edition. In this, the third edition, considerable new matter has been added and the greater part of the work thoroughly revised, particularly the articles on "Orbital optic Neuritis," "Hereditary Optic Nerve Atrophy," "Tumors of the Choroid," "Retinitis Carcinomata," and the chapter on Operations. Emphasis is placed on the causative relationship which bacteria sustain to many forms of ocular disease. It is well known that the talented author is a careful, tireless student and an indefatigable worker, and he has evidently put his best efforts into his book, which is fully abreast the advance of science and is as complete and thorough as it is possible to make a book of its size. The specialist can read it with profit and the practitioner who wants an authority on the eye, can follow the teachings of this volume in confidence. The author has done his work well; so has the publisher.

What a Young Woman Ought to Know, by Mrs. Mary Wood-Allen, M. D., and Sylvanus Stall, D. D.; being one of the "Self and Sex" series; Vir. Publishing Co., Philadelphia. Cloth, \$1.00. 1899.

The authors, in their preface says: "One of the gravest errors in the education of our girls is the facts that parents and educators have failed to realize that the daughters will be the mothers of the next generation; that in their hands lies in an unlimited measure the power to mould the characters and direct the destinies of the boys and girls of the future. * * * How much has been sacrificed upon the altar of her education is revealed by the waiting rooms of our medical specialists crowded with women in the bondage of suffering." The volume is divided into many chapters, under three headings, the first being, "The Value of Health, and Responsibility in Maintaining It," the second, "Need of Special Knowledge; Some Forms of Avoidable Diseases, Their Remedy and Prevention," and the third, "Love, Heridity, Engagement." The book is well written and if our girls would study it much good would follow. They need the information this book gives.

The Treatment of Skin Cancers By W. S. GOTTHEIL, M. D., Professor of Dermatology at the New York School of Clinical Medicine. International Journal of Surgery Co.

The title of this extremely useful brochure is misleading as it would indicate that the treatment of skin cancers comprised its contents, but we find one chapter devoted to The Cause of Cancer, one to Pathology, another to The Forms of Cancer of the Skin and one to Diagnosis. Treatment follows and is accompanied by short reports of cases illustrating the different appearances of skin cancers as seen clinically and indicating the most suitable treatment for each. The author prefers caustic to the knife except when for special reasons the caustic treatment is not applicable, giving preference to arsenious acid. Speaking from large experience he says, "Cutaneous carcinoma, early and vigorously treated by the caustic method, is a very manageable disease, and of good prognosis."

The Principles of Bacteriology, by Dr. Ferdinand Hueppe, professor of Hygiene in the University of Prague. Translated from the German by Dr. E. O. Jordan, Assistant Professor of Bacteriology in the University of Chicago—Open Court Publishing Company, Chicago, \$1.75.

This volume of 465 pages is fresh from the press and is clearly printed on good paper, illustrated with well executed wood cuts. It contains 8 chapters, and we cannot give a better idea of the book than by enumerating these:

Chapter I.—The Structure of Bacteria.

Chapter II.—The Vital Phenomena of Bacteria.

Chapter III.—Brief Descriptions of the Most Pathogenic Bacteria.

Chapter IV.—The Cause of Infectious Disease.

Chapter V.—Can Disease be Cured by Combatting the Cause.

Chapter VI.—Immunity: Protective Inoculation; Curative Inoculation.

Chapter VII.—The Prevention of Infectious Disease by Combatting the Cause.

Chapter VIII.—The History of Bacteriology.

The book is written in language that is clear and forcible exhibiting a strong "under-current" of common sense. The following quotations are given: "Disinfection is successful only when cleanliness is associated with it. Cleanliness is the first and better half of disinfection."

Funny Bone, a book of mirth for Doctors, Druggists, Dentists, Medical Students and others, published by THE FUNNY BONE PUBLISHING CO., St. Louis. Paper covers, Illustrated, 50 cents. Filled with laugh-making jokes.

" 'Bilious' was the common dictum
For the ills of all our youth,
Calomel and big pills down us
Poked the doctors, then, forsooth."

" 'If you want unvarnished truths, sirs,
When a man comes to his death,
And you don't know what killed him,
Say 'he died for want of breath.' "

Medical and Surgical Review of Reviews, London, England. The latest addition to our list of exchanges is the above named magazine, edited by N. E. Boyd, M. D. This publication is on the line of the American *Review of Reviews*, but deals exclusively with medical subjects. Its Editorial Notes are cleverly written on subjects of interests to all medical men and are a valuable and striking feature. The book contains about 130 pages of large, double column matter and is handsome in appearance. Subscription price \$5.00 per annum.

The **Review of Reviews** for April contains a paper by SAML. W. BELFORD, late assistant adjutant-general on the staff of General Otis on The Material Problems in the Philippines; The Czar's Peace Conference is the subject of an interesting paper by Edwin Munsell Bliss: Canada's Claims before the Joint High Commission are set forth by Agnes C. Lant.

An Irishman, in order to celebrate the advent of a new era, went out on a little lark. He did not get home until 3 o'clock in the morning, and was barely in the house before a nurse rushed up and, uncovering a bunch of soft goods, showed him triplets. The Irishman looked up at the clock, which said 3, then at the three of a kind in the nurse's arms, and said: "Oi'm not superstitious, but thank hivens that Oi didn't come home at twelve!"

Aunt Abby—I hear that Cinthy Simpkins is sick.

Aunt Kate—Yes, I s'pose she is by this time. "There was one of them patent medicine fellows 'round yesterday distributin' advertisements.

Correspondence.

To the Editor of the North Carolina Medical Journal:

SIR:—In your issue of March 5th, page 195, you have taken from the *Virginia Medical Semi-Monthly*, Vol III, No. 9, page 244, some Gynecological Axioms on Uterine displacements by me and then appears a criticism of Axiom 8 to which I must take exception. I will quote Axiom 8 and the criticism thereon to make myself clear.

"8. Never use a sound or repositor for correcting a misplacement or for making a diagnosis. It is unnecessary and dangerous."

My critic adds ("Herein experience does not accord with that of the writer concerning the use of the repositor. The latter's action is upon an anteroposterior axis, similar to that of the uterus; its use is necessary in the replacement of the retroverted uterus, preliminary to the introduction of the pessary.") "A retroverted uterus readily replaced by the finger alone is rarely in need of treatment since it seldom gives rise to severe symptoms. The use of the sound, however, in endeavoring to replace a retroverted uterus is out of the question, since its action must be upon a lateral axis, and thus injury may readily be done."

I take exception to this criticism because the views therein expressed do not coincide with the views held to-day by men who are best qualified by experience to be considered authorities on this subject. We have had to unlearn many things in gynecology because the methods of the earlier teachers in this branch were very crude owing to their limited facilities and immature experience. Evidently my critic has not yet unlearned some of the erroneous teaching that has sprung therefrom.

I have never owned a repositor, though I have been engaged in the practice of gynecology twenty years and in teaching this branch six years in a centre of medical education. A man who is obliged to use a repositor for replacing a retroverted uterus should not practice gynecology. I repeat, it is both unnecessary and unsafe; unnecessary because the uterus when movable and not fixed by adhesions can readily be replaced without it, and unsafe because of the diseased condition of the endometrium associated with posterior displacements of the uterus and the extreme liability of inflicting injury and producing infection which may then cause involvement of the adnexa if it does not already exist. If the repositor is necessary to replace a retroverted uterus how is it to be determined previously that it is not fixed by adhesion? Surely no one would use it intentionally in such condition.

How any one, in this enlightened age, can persuade himself that a posterior displacement of so important an organ as the uterus may be disregarded with impunity until it produces "severe symptoms" is beyond conception, more particularly when it is well known that such malposition seriously interferes with the circulation, nutrition and function of the organ and its adnexa and that fixation with all its attendant evils often results from such neglect.

It is just such teaching as this that fills the consulting rooms of gynecologists.

AUGUSTIN H. GOELET, M. D.

New York, March 20, 1899.

Review of Medical and Surgical Progress.

Points in the Arsenical Caustic Treatment of Cutaneous Cancers.—By William S. Gottheil, M. D.

1. The arsenious acid caustic treatment of skin cancers does not contemplate or depend upon the actual destruction of the new growth by the caustic.
2. The method is based upon the fact that newly formed tissue of all kinds has less resisting power than the normal structure when exposed to an irritation and its consequent inflammation. Hence the former breaks down under an "insult" which the latter successfully resists.
3. If therefore the whole affected area can be subjected to the influence of an irritant of just sufficient strength to cause a reactive inflammation intense enough to destroy the vitality of the new cells, the older normal cells will survive.
4. Arsenious acid of properly mitigated strength is such an agent, and its application causes an inflammation of the required intensity.
5. It therefore exercises a selective influence upon the tissues to which it is applied, and causes the death of the cancer cells in localities outside the apparent limits of the new growth, where there is as yet no evidence of disease.
6. It is superior, in suitable cases, to any method, knife or cautery, which requires the exercise of the surgeons judgment as to the extent to which it is to be carried. That that judgment is often wrong, and necessarily so, is shown by the frequency of recurrence under these methods even in the best hands.
7. It is applicable to all cutaneous carcinomata in which the deeper structures are not involved, and which do not extend far onto the mucous membranes.
8. It is easy of application; it is safe; it is only moderately painful; and its results compare favorably with those obtained with other methods.

Forced Examination of the Larynx in Children.—It is sometimes extremely desirable to have a chance to make a detailed laryngoscopic examination of young children. One is apt to hesitate, however, to employ general anaesthesia, and parents will object to anaesthetics unless some operative procedure is intended at the same time. Besides, laryngoscopic examination under an anaesthetic is usually unsatisfactory. For a physician who does special work on the throat some method of accomplishing this purpose of satisfactory laryngoscopic examination of children is absolutely necessary.

In the forthcoming number of "*Progressive Medicine*,"* the new quarterly review of current medical progress, Dr. A. D. Blackader, of Montreal,

**Progressive Medicine*. A quarterly digest of new methods, discoveries and improvements in the medical and surgical sciences. Edited by Hobart Amory Hare, M. D. Vol. 1, March, 1899. Lea Brothers & Co., New York and Philadelphia.

will describe two novel methods. The first is Escat's suggestion, and is instrumental. He has devised a peculiar form of tongue depressor, as shown by the accompanying figure. As may be seen in the illustration, the instrument is curved so as to adapt itself exactly to the base of the tongue. On the distal extremity a blunt fork is fixed, of which the two branches descend, one on either side of the epiglottis, ending in two rounded points which, when the instrument is used, are supposed to lodge in the pyriform sinuses on each side of the laryngeal orifice. The instrument serves, therefore, not only



to control the tongue, but to pull forward the rima glottidis from the posterior wall of the pharynx, and so to provide good conditions for the employment of the laryngoscopic mirror. It is probable that on the principles used by Kirstein, in what he calls autoscopy, i. e., laryngeal examination without a mirror, the examiner will be enabled with a little practice, to see a good deal of the larynx (especially its posterior part, which is the more important one) by direct vision, and without the use of the mirror. The method of the manipulations with the new instrument is well illustrated in a diagram presented. In the second diagram the position of the instrument in the throat is well shown. It will, as a rule, be necessary, even with the instrument, to have the movements of the child restrained by a sheet rolled around its arms and legs in the usual way, and to have it carefully held on the knees of an assistant, but with this the examination of the larynx can be made much more satisfactorily than with the ordinary tongue depressor.

A simple method for the examination of young children is also given in the same number of "*Progressive Medicine*," which seems extremely practical and well worth noting. It was demonstrated by Lack, at a meeting of the Laryngological Society of London, about a year ago. The advantage of this second method is that no special instruments are required and no force-

is employed. It is described by Dr. Blackader as follows: "The infant is placed in the usual position for laryngoscopy, the index finger of the left hand is passed well into the mouth, and the terminal phalanx hooked around the hyoid bone, which is pulled forward. The rest of the finger acts as a tongue depressor, the knuckle as a gag, while the left thumb under the chin serves to stead the head. With the use of a small mirror the larynx can now be easily seen. The method causes no pain, and requires no anaesthetic, while the younger the infant the less is the resistance and the easier the examination." These manipulations certainly commend themselves by their ease and simplicity, and it would seem that the method deserves thorough trial that its merits may be tested in practical use.

The Effects of Baths.—Dr. James J. Putnam in an interesting paper (*Boston Medical and Surgical Journal*) makes a plea for a more careful study and extended use of hydrotherapeutics. He offers the following conclusions in regard to a few points on which physicians are apt to hold fallacious opinions.

(1) Is a "shock," as from sudden application of cold water, useful or objectionable? The latter view is often maintained, both by patients and physicians, but the former is correct, provided only that the shock is proportioned to the habits, and the capacity for reaction. Patients are apt to dislike the "shock" of cold water, and if they are feeble or nervous it may, if severe, frighten or fatigue them. For this reason, when an unfamiliar method is first used the application should be as warm as 85° to 90° . This will feel cold if the skin has previously been warmed to 100° or higher. On the other hand, the common practice of letting cold water run gradually into a previously hot bath, so that the temperature is slowly lowered and "shock" avoided, is an objectionable one, and much less likely to be followed by a good reaction than a more sudden change, especially if the latter is associated with smart friction, as in the case of the drip-sheet or forcible cold affusion given by another person. It is not easy for a patient to make a thoroughly satisfactory cold application unaided, except by an immersion-bath, since otherwise, at the best, only half the body can be bathed and rubbed at one time. The immersion-bath at low enough temperature to be thoroughly stimulating is very refreshing to vigorous persons who are thoroughly habituated to it, but less safe for feeble persons. If the latter must take their bath unaided, rubbing with a large, dripping-wet towel is perhaps the best method.

(2) Hot baths, at temperatures considerably above that of the body, have primary effects similar to those exerted by cold baths, but secondary reactions are liable to occur, leaving the skin pale and cool and the arterial tone low, and, moreover, the skin is for a time after them abnormally sensitive to slight cold. It is risky, on these accounts, to take hot baths at bedtime, because the primary heat of the skin leads the patient to underestimate the amount of clothing which will be required later and he may wake to find himself chilled. These dangers are diminished if sufficient time is taken to allow of complete

cooling before going to bed, or if the hot bath is followed by a dashing or rubbing with cold water. Of course there are cases, however, where the sedative action of prolonged warm bath is very useful. Massage given during warm baths is very useful for elderly people with arterio-sclerosis.—(Jacobi).

(3) It is a mistake to suppose that shivering is necessarily a sign that the body is becoming chilled to an objectionable degree. Shivering frequently occurs when one rises from bed on a cold morning, and yet wholly disappears, together with the *sense of coldness* that accompanies it, after a plunge into very cold water. Even blueness of the finger-tips is not necessarily a danger sign, since it is usually due to local changes in the cutaneous circulation, and not to weakness of the heart.

(4) Children do not require as low temperature as adults to develop such a degree of reaction as can be expected from them, and do not stand severe cold as well.

(5) Where the reaction on the part of the vasomotor system is to be limited to a small portion of the body, lower temperatures and more prolonged applications can be used than where the whole surface of the body is to be exposed.

(6) Where drip-sheets, or sheet-baths, or wet-packs are to be used, coarse linen sheets or damask table-cloths are better than cotton sheets, as being more absorbent and affording better surfaces for friction.

(7) The mechanical impact of a stream of water delivered under high pressure in the form of a douche adds greatly to the stimulant effect, and insures a better reaction. Nevertheless, a feeble patient has to be accustomed gradually to high pressure, as to low temperatures, and at first relatively short applications are necessary. In a well-appointed institution greater and readier variability, and thus better results, can be obtained than in a private house.

(8) Especial caution is necessary in applying baths, tending to produce much reaction, to elderly persons, or to any persons with brittle arteries or with disease of the heart.

Cerebrospinal Meningitis has prevailed widely in the Southwest during the past winter. Southern Illinois, southeastern Missouri, Arkansas, and northern Texas have suffered especially from the epidemic. Upward of sixty deaths from the disease were reported in St. Louis during the month of February. It has been observed that this dread disease often prevails in epidemic after wars.

Physicians strive for hospital, dispensary and other public positions which bring them prominently before the profession as recognized authorities. They can gain a far wider and speedier recognition from the profession by *really good work* in a reputable medical journal.

Reading Notices.

D. T. HUDGENS, M. D., ELIZABETH, ARK., SAYS: I have used S. H. KENNEDY'S EXTRACT OF PINUS CANADENSIS in leucorrhea with very good results. I have had under my treatment Mrs. S., age 33 years, for leucorrhea, with anteversion of the uterus. I used WHITE EXTRACT per vagina as a local treatment for the leucorrhea, and the treatment was attended with success. I am satisfied that PINUS CANADENSIS should occupy a prominent position in our materia medica.

VIN MARIANI IN EXHAUSTION.—We have had occasion in numerous instances to administer "Vin Mariani" to business and professional men who complained of being gradually run down. The work of the office, the cares and worry entailed by business and the physical flaccidity brought on by overwork, all seemed to give way completely in a marvelously short space of time, despite the fact that the subjects continued uninterruptedly at their usual occupations. The notable fact to be observed is that in each instance the effect was permanent. But it must not be forgotten that, in order to make this result a lasting one, it is necessary to keep the patient upon a prolonged course in the use of "Vin Mariani." There is no doubt whatever that this preparation has proven itself a boon to mankind.—*The St. Louis Medical and Surgical Journal*, March, 1899.

A PHYSICIAN of extensive practice who has devoted many years to the study of respiratory troubles writes that he believes he has found the most reliable treatment yet devised for obstinate bronchitis:

"My sister Mrs. M. had been under treatment during ten years for chronic bronchitis without definite improvement. She was extremely weak and emaciated and had frequent paroxysms of coughing with copious opaque yellowish expectoration streaked with blood. There was pronounced Angina with a sense of weight and tightness across the chest. About six weeks ago I began administering a petroleum emulsion made by the Angier Chemical Company, of Boston, in teaspoonful doses mixed with two ounces of milk. In three days the cough entirely vanished and the pulse became full and regular. In six weeks she has gained eighteen pounds and declares herself cured. This is only one case among many."

"THE TWO ARMIES."

[BY OLIVER WENDELL HOLMES, M. D.]

"As life's unending column pours,
Two marshalled hosts are seen:
Two armies on the trampled shores
That death flows back between.

"One marches to the drum-beat's roll,
The wide-mouthed clarions' bray,
And bears upon a crimson scroll,
'Our glory is to slay.'

"One moves in silence by the streams,
With sad, yet watchful eyes,
Calm as the patient planet's gleam
That walks the clouded skies.

"Along its front no sabres shine,
No blood-red pennons wave;
Its banner bears the single line,
'Our duty is to save.'"

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIII.

CHARLOTTE, APRIL 20, 1899.

No. 8

Original Communications.

The Disorders of Digestion.

By JOHN N. UPSHUR, M. D., Richmond, Va.,
Professor of the Practice of Medicine in the Medical College of Virginia, etc.

ONE of the results of the advance in modern internal medicine, is not only a deeper and more accurate insight into disease in general, but in no direction has more been accomplished than in the disturbances of the digestive tract, affecting nutrition, arising as they do, not only within the particular viscus, stomach or intestine, involved, but due oftentimes to remote causes, and we now recognize the fact that the old term dyspepsia, not only means difficult digestion in a general way, but in no way describes, except vaguely and unsatisfactorily, what the difficulty is.

An improved knowledge of pathology has resulted in a therapy better adapted to the true nature of the disorder, and the remedy, whether dietetic, medicinal or mechanical, is so adjusted to meet the indications, that many cases which originally formed only targets for shrewd guessing, now respond to scientific treatment, and marked improvement and often cure, rewards our efforts, making life tolerable, when before it had been only a burthen to the sufferer, and the case an "*approbrinm medicanum*" to the Doctor. The process of digestion to be normal must be *rapid*, *painless* and *complete*, when the process is impaired, it is a common experience to find at least more than one of these requirements lacking. Of the conditions present, interfering with the healthful function of digestion, a sound etiology to explain the symptoms must be sought. It may find its inception in the debility following an attack of some acute disease—returning appetite during convalescence tempting the patient into imprudence in diet, resulting in injury to the viscus more or less permanent. Over taxed digestion, at other times by excess in eating or drinking, or food over stimulating and irritant in itself, being the beginning of an acute gastric catarrh, subsequently becoming chronic—or beginning as a chronic catarrh—all of the conditions in the stomach and duodenum being favorable to the elaboration of an imperfect or incomplete

secretion of the digestive fluids, or the mucous acting as a ferment, starts the process in the ingesta, and hinders the progress of digestion, or stops it entirely before the process is complete. The gas evolved produces a sense of oppression, weight or distension in the epigastrium, amounting frequently to actual pain, attended by eructations of gas, more or less foul, tongue coated, and bad taste in the mouth. Again the ingestion of food is followed by pain more or less promptly, according to the impairment of function in stomach or duodenum. Pain, however, may not be due simply to functional disturbance, or a simple hyperæsthetic condition of the mucous membrane—*ulcer* may exist—being either a consequence of chronic gastric catarrh, or causative of it, as the result of hyperchloridia, or an embolic condition of the capillary vessels of the stomach in the locality in which the solution of continuity takes place—or due to mechanical injury or poison. Now the fact must be borne in mind that pain does not always exist, when ulcer is present there may be only digestive disturbance, hemorrhage following the ingestion of food especially of hot articles of diet, or the burning spot behind the inferior extremity of the sternum, and its opposite point in the spine, Hemorrhage is the most constant symptom of ulcer, the blood bright red, spit up usually unchanged, though sometimes vomited, and constantly excited by partaking of solid food, It is too, persistent and not readily responsive to appropriate remedies. *Cancer* may be the explanation of pain, nausea and vomiting of blood, coffee grounds in character, and mixed with partially digested food being the characteristic manifestation, palpation detecting the presence of tumor. The patient may complain of *excessive acidity*, the true nature of which is to be determined by the test meal—remembering always that excess of hydrochloric acid exists in ulcer and lactic acid in cancer. The greater resistance to relief, if it be a condition of hyperchloridia. Furthermore the digestive disturbance may be due simply to a too slow peristalsis—the result of muscular debility—simple and pure, or back of this may be a condition of innervation, having its starting point in a general neurasthenia. It makes little difference here as to quality of food, the motive power of the machine is crippled, and the practical fact in the therapy is the indication for a general and efficient upbuilding of the whole system and not a therapy expending itself on the stomach as the chief objective point of attack—and fundamental and essential to this is *rest, absolute and complete*, rest from the tension of business strain, or professional worry, without this the result of treatment can be only transient, or absolutely futile. Not an uncommon cause of digestive disturbance is an imperfect performance of the *process of mastication*—either because of too great haste in eating, when the food, half chewed and insalivated, is crowded on the stomach, or the loss of the teeth which prevents mastication of the food at all, and the bolus arrives in the stomach in condition totally unprepared for the second step in the process of digestion; not only is an unprepared mass found in the stomach, but as a consequence of the difficulty, slow peristalsis results from fatigue to the muscular coat in an effort to carry a burthen beyond its capacity, thus favorably predisposing to

incomplete solution of food, and the development of the process of acid fermentation, with its attendant discomfort of weight, distension, and acid eructation. Valvular heart lesion, with insufficient venous return, is commonly the cause of obstinate gastric catarrh; in renal lesion, when the kidney fails to eliminate the effete material that should go off by that channel, the stomach, by the medium of its mucous membrane performs a vicarious office for the kidney and digestive disturbance results marked by the development of gastric catarrh, obstinate and distressing nausea, or vomiting, coated tongue, foul breath, etc. The digestive disturbance *may depend upon a* condition of uricacidæmia, finding its initiative in a lithæmic diathesis, and errors in diet from a lithæmia standpoint, and requiring a rational therapy, both dietetic and medicinal to correct the excess of uric acid retained in the system—or to modify the conditions from a nervous standpoint, which interfering with metabolism, have largely contributed to its development. As the result of chronic gastric catarrh, lymph elaborated between the muscular and mucous coats, organizes, contracts, presses upon the peptic glands, resulting in their permanent destruction—true gastric cirrhosis. Or, excessive eating, distending the stomach, or constant distension from flatulence, producing distension or dilatation of the stomach (gastrectasis) impairing the peristaltic power of the stomach, and distressing disturbance of digestion, indicated by a sense of a load in the epigastrium, pasty taste in the mouth, foetid eructations, etc., results from a condition of organic change, which at best is scarcely curable, and only palliative. Sacculization of the stomach may result from cicatrical contraction from the healing of gastric ulcer. Into these pockets the ingesta falls, and its digestion being imperfect, it becomes a source of fermentative change. The interference with duodenal digestion brings most distressing symptoms—digestive disturbance in the duodenum, is due to a more complicated condition than in stomachic digestion. This is because more fluids enter into solution and assimilation at this point, any impairment of bile, pancreatic fluid or intestinal juice, contributing to digestive disorder. Imperfect stomachic digestion may be the cause—when duodenal digestion is not going on—the normal condition of the viscus is acid. So soon as digestion of fats, sugars and starches begins it becomes alkaline. If acid fermentation takes place in the stomach, the food in solution, *too acid*, passing into the duodenum, neutralizes its alkaline state makes *it* acid, fermentation takes place, diarrhœa results. This form of dyspepsia, is indicated by *pain, coming on two hours* or more after eating, and located in the left lower epigastric region, or left hypochondrium. The fact as to whether the cause of intestinal indigestion is located in the duodenum or due to stomachic acid fermentation is *important*, as its bearing on therapy is essential to complete relief.

Thus I have endeavored to show how the term dyspepsia is a misnomer, and how much of the ordinary treatment of the disorders of digestion, is *treatment of a name* not the skilled therapeutic management of the forms of disorder giving rise to the suffering. Empirical medication, with diges-

tive ferments, quinine, strychnine, and the *last fad*, advertized by the manufacturing chemist, in good faith, but in ignorance of physiological facts and pathologic conditions, the average doctor tries with varying success, and more or less harm to the patient and less of reputation to himself. Perhaps no agent has had a wider administration than pepsin in its various forms, liquid and solid, or had a wider reputation for good, and all of us give it. But in combination with agents, we know to be potent, always, dilute muriatic acid, strychnia, etc., the pepsin generally getting credit it does not deserve. I very much question if *any of the digestive ferments are worth anything*; certainly in the doses exhibited, we have no guarantee, that because solution of food elements takes place in a test tube, the same will be true in the stomach. For a moment consider the size of the stomach and the bulk of ingesta in it after a meal, the size of the dose of digestive ferment, a $\frac{1}{3}$, or four or five grains, and to believe in its agency in promoting digestion seems absurd. Consider also *any* of the diseased conditions I have discussed, and say how digestive ferments can stop acid fermentation from too slow peristalsis, lack of nervous tone, catarrhal conditions, dilated stomach, ulcer, etc. And what is true of the stomach, is true of the duodenum also.

I plead for more careful and systematic study of these disorders, the striving for accurate diagnosis—and a rational therapy. That *men* stop guessing, as quixotic and irrational as tilting at a windmill. It will stop the sneers from the patients at the inefficiency of the doctor, and be the most fatal blow at quackery, patent nostrums, etc. *Medicine is competent* to deal with these disorders and effect a cure in many of them, the fault lies in lack of care in investigation, and a superficial knowledge of the disorders sought to be relieved. Earnest endeavor to attain a full mastery of the subject will bring its owner a rich reward.

210 W. Grace St.

Chronic Diarrhœa.

By ROBT. L. PAYNE, M. D., Norfolk, Va.

Visiting Surgeon St. Vincent's Hospital, ex-Member Board Medical Examiners of North Carolina, ex-President North Carolina Medical Society, etc.

CHRONIC diarrhœa is a term very loosely used by the profession to designate a state of affairs which is merely symptomatic of many widely different and complex conditions.

The conditions upon which chronic diarrhœa depends are always relieved with difficulty and, for the reason that so many physicians not only speak of the symptom but actually treat chronic diarrhœa as a disease entity, with no regard to ultimate causes, its cure has become the approbrium of medicine. Let us briefly consider them, the varying conditions which must be differentiated when one is called upon to treat such patients.

Paradoxical as it may seem chronic diarrhœa may be the result of conservative action on the part of nature and under such conditions should not

be interfered with. This is notably so in cases of nephritis in which the diarrhœa is due to the elimination of urea by the bowels in nature's effort to supplement the action of the kidneys. This is also true in cases of cirrhosis of the liver in which the diarrhœa is often but one of nature's efforts to prevent dropsical effusions and in both these conditions the cause being understood, the physician will not dare interfere with the conservative efforts of nature.

Again, chronic diarrhœa may have a reflex origin and no amount of medicine addressed to the symptom diarrhœa will cure the disease until the reflex source is recognized and relieved. This is not infrequently the case in fissure of the anus, in which by reflex influences peristalsis is hastened, the food being so hurried through the intestines that digestion and assimilation are seriously impaired, and this cause of diarrhœa is very worthy of note because we are apt to regard constipation as an absolute rule in cases of fissure of the anus and further the lenteric discharges are apt to lead to the supposition that intestinal indigestion is the primary cause of the symptom.

Again let us notice, chronic diarrhœa is often a product of purely nervous influences which cause profuse serous osmosis into the intestinal tract and hence diarrhœa. A number of such cases of an acute character have come under my notice, notably in young physicians coming up for the license examination, and I have seen many cases of chronic type developed and continued by nervous strain and overwork associated with anxiety.

Diarrhœa of such frequent occurrence as to be often called chronic diarrhœa is often associated with the gouty diathesis in which there is often frequent alternation of constipation with diarrhœa, and here, of course, the only proper method of treatment is to relieve the existing lithæmia.

In dilatation of the stomach, though constipation is the rule, cases occur in which very frequent attacks of diarrhœa are brought on by the discharge of fermenting material into the intestines and so this cause must not be overlooked in cases of diarrhœa occurring at intervals of a few days.

In cancer of the intestines constipation usually alternates with short attacks of diarrhœa, but if the lesion be seated low in the colon, as in the sigmoid flexure there are apt to occur frequent, thin discharges from the bowels. The presence of tumor and the peculiar cachexia will serve to distinguish these cases.

In that peculiar disease, lardaceous degeneration of the intestines, diarrhœa is a constant feature and in such conditions is incurable, owing to the hopeless degeneration of which it is a symptom.

Purging may be a symptom of tuberculosis of the mesenteric glands, and this condition should always be sought for in the chronic diarrhœa of childhood, or when this symptom is associated with other evidences of tuberculosis. These are among the rarer causes of chronic diarrhœa and should never be overlooked in the study of these cases but in the great majority of cases chronic diarrhœa has for its immediate cause either intestinal indigestion or chronic intestinal catarrh. This fact would seem at first glance to

simplify very greatly the study of these cases but when we recall the varying causes of these two conditions we can readily see why chronic diarrhœa is so difficult to cure.

Intestinal indigestion is almost protean in its origin. It may result from conditions of the stomach characterized by hyperacidity in which so much acid is discharged into the duodenum that the alkalinity of the bile is destroyed, hence the ferments upon which intestinal digestion depends cannot act. On the other hand it may be the result of certain diseases of the liver and bile ducts in which bile is not poured into the intestines in quantity sufficient to neutralize the normal acidity of the chyme and for this reason the digestive ferments are rendered inert. Intestinal indigestion may be due to simple torpor of the bowels, normal peristalsis being inhibited for any reason the food is delayed in its progress through the intestines and hence is not acted upon by the different digestive ferments. When we recall then how nearly related the process of digestion in the intestines is to putrid decomposition of food and how under the slightest provocation such decomposition with the formation of foul gasses and poisonous ptomaines occurs, we can readily understand how important a factor a delayed peristalsis is in the production of intestinal indigestion. Again, intestinal indigestion is the direct result of all diseases of the pancreas in which the secretions of this organ are in any way impaired or interfered with. In obstruction of its duct by neoplasms or otherwise, in catarrh of its duct; in acute pancreatitis and in malignant degeneration of this gland, the leading symptoms are generally those of intestinal indigestion. There is a fairly prevalent idea in the profession that in diseases of the pancreas destructive in character fatty diarrhœa or the appearance of fat in the urine necessarily follows, but while this is frequently so it is not necessarily so, and it is of the greatest importance to note that in diseases of this organ there may be a faulty secretion of any one of the important ferments, trypsin, amylase, or steapsin, giving rise to imperfect digestion of the different classes of food, and this fact is of great importance in the treatment of intestinal indigestion. Finally let us notice that intestinal indigestion is the most frequent cause of chronic intestinal catarrh. Now turning our attention to chronic intestinal catarrh, the most common of all the causes of chronic diarrhœa, we find this too is the result of widely different pathological conditions.

Improper food, the excessive use of condiments and alcohol; the presence in the bowels of foreign bodies, especially fecal concretions, the result of neglected constipation; all chronic lesions of the bowels, such as neoplasms of its walls, tubercular or syphilitic ulcers, etc., and neglected acute catarrh are causes of chronic intestinal catarrh. But again diseases of the heart, lungs or liver may produce intestinal catarrh by causing obstruction of the portal circulation, hence venous stasis in the mucous membrane of the intestines, and no matter how the catarrhal process is produced, chronic diarrhœa is its leading symptom.

It is also worthy of note that in all cases of chronic catarrh, intestinal indigestion is soon developed and is one of the most troublesome of all its complications. We see, therefore, that although in the majority of cases we may determine chronic diarrhœa to be due to the existence of intestinal indigestion or chronic intestinal catarrh, one or both, these in turn are due to so great a variety of pathological conditions that it is often impossible to get back to ultimate causes and hence much of the difficulty which must always attend the treatment of these cases.

How then shall we treat a symptom whose causative relation is so exceedingly widespread? It goes without saying, remove the cause, and he will be the most successful who is most careful in differentiating the different etiological factors. A careful study of all the habits of life of the patient and of all reflex causes must be made of the whole history of the case studied in every detail. A physical examination of heart, lungs, liver, pancreas, stomach, kidneys and finally of the intestines must be made.

All ultimate causes must be investigated and so far as possible removed or if that be impossible alleviated, so far as may be before we can have any hope of cure, but apart from this much relief may be had from direct treatment of the symptom diarrhœa. All sources of care and care must be removed and the patient be encouraged to lead a regular, abstemious life. Exercise should be taken in great moderation at all times, and often it is best to keep the patient for a time absolutely quiet in bed.

The various excretory glands must be carefully watched and their functional activity promoted. Especially must the skin be kept in good condition by daily sponge baths followed by massage. Great attention must be paid to the thorough mastication of the food which must be eaten very slowly and it is better to take small meals at intervals of a few hours than full meals at the regular hours for eating prevalent in everyday life. After eating a period of absolute rest should be enjoined.

The diet should be very carefully regulated and to this end the careful physician will make frequent, thorough examinations of the stools and in many cases it will be best to do this with the microscope. As before said at different times and under varying conditions the pancreatic ferments, trypsin, amylopsin, etc., may be secreted in varying amounts and so, at times, even when such a state of affairs cannot be determined by the naked eye, under the microscope starch granules, muscular fibre and imperfectly emulsified fat globules may be seen and thus much light be thrown upon the class of food to be eliminated from the dietary.

As a rule it will be better to give lean meat than bread. Cold roast mutton, the white meat of fowl roasted or smothered, scraped beef, raw oysters and the animal broths are usually to be allowed. Generally no starchy food should be allowed except bread which should be given sparingly and then only in the form of stale, risen bread, toasted dry. The greatest care must be exercised as to the quality of the bread remembering that the fermentation of the yeast is often very imperfectly completed in the bread-mak-

ing and that in this way the tendency to fermentation in the stomach may be constantly encouraged. Milk forms an important article of diet but is best sterilized and peptonised and should be sipped slowly and never swallowed rapidly.

As to the medical treatment of chronic diarrhoea, apart from such treatment as is addressed to diseases of distant organs bearing causative relations, I have long found that the vast majority of cases are most benefitted by remedies used to promote stomachic and intestinal digestion, to the prevention of fermentation in the stomach and bowels and to direct medication of the catarrhal process nearly always present, by enteroclysis. It is necessary to facilitate stomachic digestion in order that the food may be as perfectly prepared for intestinal digestion as possible before it passes from the stomach and it is of especial importance to prevent any undue acidity of the stomach lest the chyme be so acid as to more than everbalance the alkalinity of the bile and thus absolutely inhibit the action of the intestinal ferments. To this end pepsin, the mineral acids and the alkalies if properly administered, and the bitter tonics may at times be called into use. After determining if possible, which one of the pancreatic ferments is lacking by the microscopic examination of the stools, we may attempt to supply the want by the administration of these ferments as they are now supplied in the shops though I must confess I have had little success with them and am generally forced to withdraw from the dietary the class of foods which I find is not being digested. As to the artificial digestive agents papoid, caroid etc., I have found little benefit from their use.

The maltine preparations have at times been very useful and from Taka-Diastase I have very generally found great relief when there was indigestion of starch.

To prevent intestinal fermentation various antiseptic drugs may be useful, charcoal and B-naphthol being among the best, but the remedy I have come to rely on chiefly is creosote. This is given in gradually increasing doses. Much as the remedy is employed in phthisis and after using it in very many cases I believe if I were limited to the use of any one remedy in the treatment of chronic diarrhoea I would not hesitate to choose creosote. Under its use fermentation is arrested, the patient ceases to be troubled with gaseous distention, the appetite is improved, the digestion is facilitated, the number of stools is reduced and even in the most hopeless cases the general condition of the patient is as a rule, materially improved.

Next in importance is the systematic employment of enteroclysis.

For this purpose sterile water, normal salt solution or water medicated with creolin or with tannic acid or nitrate of silver may be used, but what I have found most useful of all is a solution of alum, one drachmn to the quart of water, administered by a fountain syringe at low pressure and if possible through a rectal tube. (In a few cases this solution excites tenesmus and the quantity must be reduced.) The patient should lie upon his left side with the hips elevated and the head low, or he may assume the knee breast pos-

ture ; the syringe must be only slightly elevated so that the water passes very slowly into the bowel and as much of the solution as possible (usually two or more quarts) is used. This should be repeated once or twice daily. The effect is often marvellous. I have often seen patients who had been reduced to extremis by frequent alvine discharges have the number of stools quickly reduced to one or two daily and rapidly regain much of flesh and strength.

As to the class of remedies usually administered in these cases, the opiates and the mineral and astringent drugs I have little to say in commendation. Each year I resort to them less frequently. Sometimes pain may be so great as to call for the use of an opiate but usually this is prevented by the use of the antiferments thus preventing distension of the bowels with foul gases.

The catarrhal process in the bowels is at times much benefitted by large doses of bismuth subnitrate or subgallate, by small doses of sulphate of copper or nitrate of silver. The vegetable astringents I have rarely seen do any real good and great circumspection is necessary in the use of all opiate or astringent remedies less any good they may possibly accomplish be more than counterbalanced by loss of appetite, impaired nerve tone and increased digestive disturbance.

300 Freemason St. April 10th, 1899.

The Treatment of Certain Summer Diarrheas of Infancy.

By ALFRED STENGEL, M. D.

Instructor in Clin. Med. University of Pennsylvania; Physician to the Children's Hospital, Philadelphia.

A CLASS of cases frequently met with in the summer, particularly in large cities, but also in country districts, has impressed itself strongly upon my mind as one in which prompt and vigorous medical treatment may be expected to yield most brilliant results. My experience with these cases in private practice and in the Children's Hospital has convinced me of the great efficacy of treatment. In private practice the disease has proved to be tractable, and as a rule easily controlled ; in hospital practice it unfortunately contributes very greatly to our summer mortality. The reason for this difference is that in private practice, treatment is begun earlier and is prosecuted with a degree of vigor that is rarely given to the hospital cases prior to their entrance into the institution where we so often find them at our first visit in a moribund condition.

The kind of cases to which I am alluding is one which, for want of better classification, must be included under the head of enterocolitis. The cases are usually sudden in onset, marked by some regurgitation of food, high temperature, copious brownish, then greenish, and finally often watery stools, and by rapidly developing signs of collapse. At the latter stage, the Hippocratic facies are observed, the external temperature falls, while the rectal and other internal temperatures remain greatly elevated. The child moans or

lies entirely still with up-turned eyes, occasionally giving a sharp meningitic cry. I say these cases are classified, for want of better description, as enterocolitis. The essential basis of classification, however, is not to be found in the extent, character, or apparent seriousness of the intestinal lesion, the elements of real importance in infantile diarrheas of this type being the amount of general intoxication or infection of the system, the degree of elevation of temperature and the constitutional reaction consequent upon it, and the depletion of the system and the desiccation of the tissues resulting from the continued discharges. The pathologist discovers no striking differences in the bowel in cases that have presented a clinical history indicative of such intense general disturbance of the system and other cases in which the manifestations has been mild and the progress of the case are steadily toward rapid recovery. It is evident, therefore, that the basis of classification is not to be found in the lesions of the mucous membrane, but rather in the general condition of the system or the form of infection or intoxication, conditions, however, which in the present state of our knowledge are not readily ascertainable or to be estimated by our means of chemical or microscopical investigation.

It follows from these thoughts that the treatment of cases of gastro-enteritis of childhood must be based upon the recognition of the elements involved, and therapeutic measures which are simply concerned with the amelioration or cure of local irritation, will fail of their purpose. The kind of cases that we are dealing with require treatment directed to the relief of the conditions already discussed, viz., infection and intoxication, high temperature, dessication, and collapse. Unfortunately, we have no direct means of combating the infection in these cases, but from certain clinical experiences, it seems to me that this is the least necessary of the three elements of treatment, since cases are constantly met with in which relief of high temperature is followed by immediate general improvement. The conclusion must be obvious that in such instances general infection does not exist to any serious extent.

The relief of the temperature is by far the most important, for it is the high temperature which leads to general depression and eventually to collapse, and by the control of the temperature we control or prevent collapse. Some believe that diarrheas of the sort we are considering are the result of general high temperature, as a sort of thermic fever in fact. This view is not thoroughly established but it is undoubtedly true that the high fever increases the existing disturbance of the bowels. The means that suggest themselves for the management of the temperature are various, but of all, I have found the local use of water by flushing of the colon and the external use of tepid baths as the most advantageous. Antipyretic remedies are worse than useless, for though they control the temperature in some cases, they have invariably, in my experience, led to increased systemic depression. Flushing of the colon with tepid water, on the other hand, is followed by prompt and satisfactory reduction of the temperature, and there usually

accompanies this improvement in the general condition of the patient. I would cite the following case as one illustrative of the beneficial results obtainable in this way.

I was called about 11 p. m. to a hotel in the lower part of the city one very hot night in September to see the child of Mrs. A., the wife of an actor. The history was as follows: Mr. A. had been traveling with his company in the West, and was ordered to proceed to New York to begin the fall rehearsals. In Chicago, where they stayed for 24 hours, the day was excessively hot, and their child, a well nourished babe 14 months old, bottle fed, developed a sudden diarrhea. At first, according to the description of the mother, the movements were simply undigested milk with some mucus. Very soon, however, they became greenish and more liquid. As all arrangements had been made for the journey to New York, the father and mother determined to take the child notwithstanding its illness, and they reached Pittsburg 36 hours after the trouble had begun. At this point, the symptoms became even more alarming, and the child sank almost into collapse. It was revived, however, by stimulants, and the parents brought it to Philadelphia during the next day, arriving here late at night, when I saw it within an hour. The infant was in a deplorable condition. The skin was cyanotic, the fingers clenched over the thumb, the expression of the face was one of pain and great depression, the eyes were turned upward and were partly open exposing the sclera, the extremities were cold, but the rectal temperature was 104°. The mother stated that the child had had several attacks of vomiting, and that the green diarrhea had continued. At first sight it seemed to me scarcely necessary to undertake any treatment; the appearance being that of a child in the last minutes of life. But despite this feeling I sent for a catheter and with the use of a fountain syringe at once flushed the colon introducing the catheter 12 inches into the bowel, and allowing two quarts of water at a temperature of about 85° to 90° to flow in, and then by detaching the catheter to discharge again through this tube. The effect was almost instantaneous. The color of the child changed utterly, the cyanosis disappearing visibly and the general strength increasing noticeably. The eyes closed, the child fell into a tranquil sleep, and upon awakening an hour later took a little nourishment which it retained. The temperature was taken soon after the irrigation, and it was found to have fallen to 100°. It continued to decrease under repeated flushing and in the course of 48 hours, reached the normal where it stayed. The improvement in other respects was equally steady and progressive.

The effect of treatment was unusually brilliant in this case, but I have seen others equally so, and very many cases in which treatment was highly satisfactory, though perhaps less striking than in this instance. In the practical performance of the act of douching, I find it advisable to insert the tube, which is a large sized catheter, high up into the bowel. In the early stages of the case, this can be done with great ease; though exceptionally in the early stages, and rather more frequently later on in the case, the mucous mem-

brane of the lower bowel becomes so irritable that great resistance is offered, and the tube cannot be inserted high up without the use of unjustifiable force. In such cases too, the liquid introduced is quickly discharged, and the flushing is not properly accomplished. The temperature of the water should be from 100° to 80° , according to the nature of the case and the elevation of the temperature. When the strength of the patient is not too greatly impaired and the temperature is high, flushing with water at 80° may be permissible, but in weakly children a higher temperature is more desirable. As to the frequency of the administration of the douches and the amount of water to be used no general rule can be applied. In cases of moderate severity, one thorough douche daily, using a quart or two quarts of water, is sufficient. In cases of greater urgency two or even three douches per day may be advisable, if the strength of the child permits such frequent interference. The good effects of douching of the bowel are the result of the reduction of temperature secured by the cool water, the removal of irritant matters from the bowel, and the supply of liquid to the blood to make up for the quantities lost. In this way high fever and its consequences are obviated, local irritation is allayed, and dessication of the tissues prevented.

The external use of water is distinctly secondary in importance, and is only useful in the milder cases and in the early stages of the affection under consideration, because it is in these forms and in this stage that the external temperature is high. In the later stages when collapse begins to threaten, external cold is manifestly improper, and hot packs to the extremities or hot flannels wrapped about the patient are more appropriate.

In some cases I have used baths of a stimulating sort with advantage. Such a bath may be prepared by adding to the usual quantity of cool water in a child's bath tub a fluid ounce or two of spirits of camphor. The effect is decidedly more stimulating than that of a simple bath of water. Possibly the alcohol alone accounts for this, but my own feeling has always been that the camphor itself contributed to the result. A cool or tepid camphor pack may be substituted for the bath. My own method has been to envelop the child in flannel cloths saturated with luke warm water, and sprinkled with spirits of camphor. Cool bathes may be used rather more freely than colonic douches but may not be employed without due regard to the child's strength.

With regard to medication, I have found opium in exceedingly small doses in the earliest stages advisable. It is useful because it allays the irritation of the nervous system and averts the intense depression which is occasioned in a reflex manner by the intestinal irritation. From what has been previously said, it must be evident that in these cases the constitutional symptoms are largely the result of reflex disturbances set on foot by the intestinal irritants whatever their nature may be, and drugs which are capable of quieting the nervous centres sufficiently to allay this reflex disturbance, without so obtunding the sensorium as to lead to greater depression in the end, are useful. Opium is by far the best remedy for this purpose.

It must be clearly understood, however, that it is not intended to relieve pains or to check diarrhea. In the earlier stages of the disease, it is highly desirable that diarrhea should continue, for nature in this way eliminates the poison, and pain is not an important symptom. Several methods of administration of the opium are useful. In cases in which the colonic douches are used I have sometimes added a drop or two of tincture of opium to the water. In other cases I have used powdered opium with subgallate or subcarbonate of bismuth in combination like the following:

- R Bismuth subgallat, gr. xxiv. or gr. xxxvi.
 Pulv. opii, gr. ½.
 Pepsini, puv., gr. vi. or gr. xii.
 Tr. in pulv, no. xii.
 Sig. one every four hours alternating with the following :
- R Hydrag. chlorid. mitis, gr. ½.
 Cerii oxalat, gr. ii.
 Sacch. alb., q. s.
 Tr. in pulv., no. xii.
 Sig. one every four hours.

Astringent remedies are rarely useful in cases of the kind under discussion.

Stimulant such as aromatic spirits of ammonia or brandy in doses of five to ten drops, and tincture of nux vomica in doses of one or two drops may be useful when the general condition demands support of this kind.

As to diet I cannot now enter into detail, but in general would outline this part of the treatment in the following way : In the earliest stages of the disease when vomiting is still a prominent feature, food may be withheld for 24 hours during which time vigorous treatment may secure control of the disease. If however the nutrition of the child does not seem to warrant this, barley water, rice water, beer juice or egg water made by dissolving the white of one egg in a half pint of water may be given. Later milk must be the principal part of the dietary. It should be well diluted, pasteurized, and sometimes it is necessary that it be predigested.

Tetany Complicating Gastro-Intestinal Catarrh.*

By J. A. FAISON, M. D., Bennettsville, S. C.

A CHILD three years, six months, and fifteen days came under my observation in 1893. The history of the case is as follows :

Landis G., the little son of Dr. Mc. T. Tatum, of Mt. Olive, N. C., was born March 26, 1890, and died Oct. 10th, 1893. Owing to the condition of the mother's breast, the child had to be fed artificially, and proved to be a difficult case, as the digestion was very feeble, and even predigested food were badly borne for several months. After the first few months his history was uneventful, until April, 1893. There was never precocity, either mental or physical, and the child was one of the handsomest I ever saw.

*Read before the South Carolina Med. Society at Harris Lithia Springs April 6th, 1899.

In April, 1893, the father's attention was called to the condition of the child's bowels. As the little fellow was bright and cheerful the father paid little attention to it, beyond giving simple remedies and attending to the diet. Dyspeptic symptoms set in and were very decided, and the child began to emaciate. This condition continued throughout the summer months. In the early fall the stomach became very irritable and weak and gastro-intestinal symptoms were pronounced. He would eject every thing taken into the stomach, and as soon as he vomited call for more. The appetite was morbid, and thirst was extreme. The first nervous manifestation occurred in June. The father went into country about three miles to make a professional visit, and the little fellow wanted to go with him, and the Dr., thinking an outing would do him good, gave him the ride. He had not gone far when he noticed that the child had fever and could not support his head, and the Dr. thought the child paralyzed; but if a neurosis 'twas very slight and this symptom passed away in about a week.

On Oct. 1st, without premonition, the father noticed tonic contracture of one foot, and in a short time the other became similarly involved. By the next day the hands were in tonic spasm. The spasms were tonic in character from the beginning of the seizure, and continued for several days with a slight remission. The contracture was quite characteristic. The symptoms were manifest. The flexed fingers and toes, the flexed wrist and extended feet, arched planter surfaces all continuing in tonic contracture till death ended the scene. After death the thumbs were still flexed. In this case there never was a history of constipation. No headaches at any time during his illness. No convulsions, never opisthotonus, nor stiffness of muscles of neck. The pulse and respiration never showed the irregularity that is so characteristic of brain tuberculosis.

There was no conjugate deviation.

There was very slight somnolence during the last days of his illness, but there was perfect consciousness to the very last.

He was very fond of his eldest sister, who had been his constant companion, and as long as life lasted would call her. A very short time before he expired he called his mother, and continued to do so, as long as he could whisper. I give this part of the history to show his mental condition.

From what cerebral disease would you differentiate this case? Certainly Tubercular Meningitis. We would have in a child of this age with Meningeal Tubercles, disturbed sleep, swollen belly, constipation alternating with diarrhoea, headache, vertigo, causeless vomiting, probably double vision, grinding the teeth, sudden cries at night, failure of nutrition and emaciation as prodromal symptoms. Studying the symptoms and analyzing the case presented, we have an insidious beginning, failure of nutrition, and emaciation due to the continued diarrhoea, as symptoms in common, and these would have marked most protracted cases of Gastro-Intestinal trouble. Never constipated, no headaches or vertigo, sleep ordinarily tranquil, neither listless or apathetic, no cough, no irregular outbreaks of fever, but diarrhoea, the

marked symptom. The excitation period of meningeal tuberculosis would have been marked by fever, headache, vomiting, constipation, and soon these would have been followed by a hard retracted belly, changed disposition, exaltation of special and general sensibility, pain excited by movements, contractions and rigidity in muscles and in extremities, and urine would have been involuntarily passed. All these symptoms were wanting, save vomiting, contracture and slight fever.

In the 3rd stage of the disease, we would have unconsciousness, dilated pupils, nystagmus, rapid feeble pulse in place of the slow irregular pulse, full prominent abdomen, involuntary evacuations and failure of respiration or death in convulsions, which symptoms were not characteristic.

I make the diagnosis of tetany from the bilateral character of the contracture, by the onset of marked gastro intestinal symptoms, from the extremities alone being involved, in the absence of unconsciousness and convulsions, by the tonic character of the spasm, by the absence of cerebral symptoms, the unchanged disposition, from the pulse and respiration; and lastly from the clinical history of the case.

As tetany is a comparatively rare affection in America, I present the history of this case, which has never been published.

Pathology—Holt says, "up to the present time no constant anatomical lesions have been demonstrated in tetany. Its symptoms and course, all indicate that it is a neurosis probably dependent upon disturbance of nutrition in the nerve cells of the spinal cord and medulla."

Osler says. "The nature of the disease is unknown, but it probably depends upon the action of some toxic agent on the motor-nerve cell."

Intestinal Antisepsis.*

By J. A. RITCHEY, M. D., of Oil City.

AT the last regular meeting of our society, I had the honor to be appointed to open the discussion for to-day on "intestinal antisepsis." In these days of therapeutic nihilism on one side, and therapeutic nonsense on the other, when it is so easy to demonstrate to the dear people that the smaller the dose, the greater the effects; that a part is greater than a whole, and that one side of the body is presided over by an entirely different force than the other, and hence if a disease or pathologic condition begins on one side of the body, it requires a certain remedy to cure or put a stop to the diseased action, but if it begins on the other side, it requires an entirely different remedy, when we are expected to believe all sorts of absurd theories and deductions from them in regard to the real nature of disease, and cram our patients full of drugs of whose action we know very little, to relieve pathological conditions about which we know absolutely nothing, notwithstanding our ignorance in regard to the primary cause of disease, and less knowledge of the

*Read before the Venango County Medical Society, Pa.

remote effects of powerful drugs; we are expected to give something and give it continuously to satisfy the credulity of the people and hold our clientele.

These remarks, are to be considered general and to be applied generally. They are not always true, or at least not true to the same extent; however, it is my pleasant duty to-day to open a discussion on a subject that as rationally explains results from medicines as is possible under complex and varied conditions.

By intestinal antiseptics we mean the making of the alimentary canal aseptic by means of antiseptic remedies, and our object further must be to maintain this canal in an aseptic condition if we can reasonably expect to accomplish much by intestinal antiseptic treatment.

Now the important question comes, can we do this? and what are the means, measures and medicines by which we propose to accomplish this much to be desired end? The digestive secretions generally are the natural antiseptics of the bowels—the bile in particular prevents the fetid stools we generally have in fevers. When the bile is present in the alimentary canal, nature's laboratory is quite sufficient to keep the intestinal canal in an aseptic condition, at least for all practical purposes, and when temporarily unable to do so, produces an evacuating storm, accompanied with increased peristalsis, wind and water, by which she floods the entire alimentary tract, and by this means washes out toxins, ptomaines and offending bodies generally before they have time to be absorbed into the blood. Suppose, however, nature has been called upon too frequently to perform this work, she has exhausted her resources, is tired, worn out by being imposed upon beyond the limit of endurance; cannot arouse herself and throw off these toxic products. She now throws out her danger signals: headache, backache, boneache, muscleache, restlessness, insomnia, delirium, nausea, disturbed heart's action and elevation of temperature. Twenty-five years ago, we gave these patients a cathartic dose of calomel and followed it with hydrochloric acid, and our patients recovered promptly. Of course, we gave these medicines empirically because we had learned that they could be relied upon to do the work. Now we know that they are two of the very best intestinal antiseptics known to the profession.

There are always two objects to be kept in view in treating any diseased condition on the principle of intestinal antiseptics. The first one is to remove all toxic matter as far as possible from the intestinal canal by injections and cathartics. The more thoroughly this can be done, the easier it will be to disinfect what remains, which, of course, will have to be done by taking internally chemical antiseptics. No one will deny the fact that by enemata and cathartics, as a rule, we can remove from the alimentary canal the greater part of anything that may chance to be in it. Very few will deny that the focus of such diseases as cholera, cholera infantum, cholera morbus, typhoid fever, etc., is in the alimentary canal, and that it is well to get rid of all offending material, and it is only the clearest common sense that to get rid of all this source of infection by mechanical means is good treatment and the

proper thing to do. There cannot possibly be much pain or any possible danger in this part of the treatment and hence we have established the first proposition.

The following important proposition still remains unanswered: Is it possible by chemicals, to disinfect, sterilize or render aseptic what still remains in the intestinal canal after all proper means have been used to evacuate its contents? When decomposition of the contents of the bowels takes place, sulphuretted hydrogen is evolved, and when sulphuretted hydrogen comes in contact with bismuth, the stools are blackened. Now, where certain intestinal antiseptics are given in sufficient quantities, bismuth fails to blacken the feces, hence no decomposition takes place. Phenol, one of the most constant products of intestinal decomposition and which is generally eliminated by the urine, disappears entirely after the administration of thymol. That certain drugs destroy ptomaines, or toxic intestinal alkaloids, seems to be an established chemical fact. That a great many typhoid symptoms disappear, or are materially mitigated promptly after the administration of intestinal antiseptics, no one who has carefully watched their effects will deny.

Cholera infantum is cured promptly by stopping the use of milk entirely, which is the primary cause, by washing out the bowels and destroying the remaining toxins by the sulphocarbolates, calomel, or other reliable intestinal antiseptics. Cholera morbus, of course, can be cured by the same treatment. When these diseases are generally recognized as cases of acute ptomaine poisoning, and treated on the principle of intestinal antiseptics the mortality will drop to very near zero. Calomel is probably the best of all the antiseptics; it is a reliable cathartic, as it prevents the growth of microbes and kills them after they are full grown, so that after giving calomel, for so these many years empirically, we are now able to give a reason for the faith so long in us that calomel is the remedy *par excellence*.

Twenty-five years ago, I began treating typhoid fever by the routine administration of hydrochloric acid; giving fluid nourishment exclusively, principally milk; bathing with soap and water sufficiently to keep the patient clean; giving him all the water he wanted to drink; seeing that the sanitary surroundings were as perfect as practicable, and allowing the bowels to take care of themselves unless the stools were too frequent and fetid, of course treating complications as they might arise, very much as I do now.

In this manner I treated typhoid fever for about ten years; the mortality was quite low. I think my success was about equal to that of my neighbor practitioners. For the next ten years, I treated typhoid fever about the same way, with the difference: Instead of hydrochloric acid, I gave tincture of iodine and carbolic acid, and my success remained about the same. About that time, my former classmate and good friend, Dr. Waugh, then of Philadelphia, now of Chicago, began to write and talk about what he called the antiseptic system, and as far as I know, he was the first to advocate intestinal antiseptics, as a system of treatment. For the last five years, I have used

neither of these remedies indiscriminately, or as a routine practice. Having used the sulphocarbolates, thymol, guaiacol, naphthalin, nitrate of silver, salol, creasote, turpentine, charcoal, including, of course, calomel, iodine, the mineral acids, carbolic acid, etc., in my opinion, calomel combines more virtue than any one remedy. As stated before, it is cathartic, aseptic, and antiseptic, and at the same time, it attacks and destroys more fecal bacteria than any other one remedy.

Guaiacol, thymol, naphthalin have a special antipathy to the bacillus of Eberth. Hence, with any one of these remedies given in sufficient quantities to maintain intestinal antiseptis, with calomel enough to produce two or three liquid or semi-solid stools in every twenty-four hours, you have an ideal treatment. It will usually require from 20 to 40 grains of either one of these remedies given every 24 hours, in divided doses, to maintain intestinal antiseptis, and in order that there may be no doubt about the aseptic condition of the canal, it is well to administer 8 or 10 grains of salicylate of bismuth every 24 hours in divided doses. If the stools are not blackened by the bismuth coming in contact with sulphuretted hydrogen, the contents of the bowels are aseptic, and the dose is sufficient; if the stools are black, of course increase the dose. Salicylate of bismuth is a very good intestinal antiseptic, and there can be no harm in thus administering it. On the other hand, it may do infinite good by indicating how much of the remedy is required, because, if we give the remedy in a half-hearted way, or give too little to produce certain results, namely, the destruction of the micro-organisms in the canal, and the cutting off of all reinforcements to those that have escaped to the blood channels we fail in our object. That the typhoid bacillus has been detected in the blood at a very early period in the disease is admitted, but that there is an army of leucocytes there, to take care of just such intruders, cannot be denied. The typhoid bacillus enters the alimentary canal at the mouth, travels downward till it reaches the lower part of the ileum, and there builds its nest in that secluded and filthy spot, surrounded by the most noxious of all the intestinal micro-organisms, breeds and hatches out countless millions of its kind. Now if we admit that efficient intestinal antiseptis is possible—and the evidence seems indisputable—nothing is clearer in medicine than that we should at once and promptly clear out this nest of infection, remove all offending material we can, and disinfect the rest.

This is not an essay on typhoid fever, in its entirety, but only so far as intestinal antiseptis bears on the disease. In passing, however, I may remark, that the second condition, that of following the bacillus into the blood, and seeing to it that it is exterminated there, is best done by aiding the leucocytes in a short time by giving nucleinic acid.

If this be true, and there is no better authority, the nuclein is always indicated to increase the army of leucocytes that must be depended upon to destroy the army of invasion comprised of typhoid bacilli. Probably the safest and best all round intestinal antiseptics are the sulphocarbolates. They cost less, are less irritating, and can be given for any indefinite length of time,

without any unpleasant affects. The adult dose is four of five grains every two or three hours, until the contents of the bowel are rendered aseptic and the stools odorless, and if you are not satisfied when this condition is secured, try the bismuth test.

Charcoal is one of the safest antiseptics. It is cheap, and not hard to take. It is not an antiseptic in the true sense. It merely has the power of absorbing putrid gasses, and the quantity required is impracticable. Quite recently, I had some experience with charcoal as an antiseptic which is worth relating, as well as remembering. The doctors in consultation were all in favor of giving an intestinal antiseptic, but could not agree on the special drug. They finally compromised on charcoal, and we began by giving a neat little tablet every four hours. The next day the tablets appeared at the outer end of the alimentary canal in the exact form, color and consistency they entered. So that if you are ever constrained to give charcoal, do not give it in tablet form, unless you at the same time give strict directions to have the tablets chewed to a fine powder before they are swallowed, and then only give it as an adjuvant, as it is not capable of doing the work alone, at best, it can only prevent decomposition. Baptisia is a remedy given extensively by the Eclectics and Homœopaths. I have never used it, but am inclined to the opinion it is quite an efficient remedy. The Woodbridge treatment of typhoid fever is on the principal of intestinal antiseptics. It simply advises the mercurial treatment. A new intestinal antiseptic, is carbonate of guaiacol, which has no claims of being any better, if as good as many others already well tried and found efficient. Hydronaphthol prevents all the growth and development of any and all microbes, and destroys all their toxic products at the same time. Biniodide of mercury has a high germicidal power, but at the same time, it has a high toxic power; it is one of our most powerful antiseptics, but its high toxicity makes it of very little value as an intestinal antiseptic. While it is sixteen times more powerful than beta naphthol, it is 250 times more toxic, so that we can safely disinfect fifteen times more material with the beta naphthol than the biniodide of mercury.

We have so many of these remedies that it is largely a matter of taste which one we shall use. That they will do the work, if given in sufficient doses seems unquestionable. That many of them are illy borne by delicate organisms and weak and irritable stomachs is too true, and herein lie the difficulties which test and try the tact and skill of the physician. You may not in many instances be able to completely sterilize all the contents of the intestinal canal, but in every case where the fetor of the stools is especially offensive, give these remedies, and they will do good. In all cases of chronic or obstinate constipation, intestinal antiseptics are indicated. In these cases there is more or less absorption of toxins into the blood—auto-intoxication—and this is why constipation makes cranks of us all.

If you see anything in this journal that you differ from, write us about it; if you see what exactly agrees with your views and experience, write about that also. Give us the benefit of your views. Send us reports of interesting cases.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.

W. H. WAKEFIELD, M. D.

Editors and Proprietors.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.
J. HOWELL WAY, M. D., Waynesville, N. C.
J. ALLISON HODGES, M. D., Richmond, Va.
S. WESTRY BATTLE, M. D., Asheville, N. C.
GEO. G. THOMAS, M. D., Wilmington, N. C.

R. L. PAYNE, M. D., Norfolk, Va.
H. S. LOTT, M. D., Winston, N. C.
J. W. LONG, M. D., Salisbury, N. C.
H. A. ROYSTER, M. D., Raleigh, N. C.
ALBERT ANDERSON, M. D., Wilson, N. C.

J. P. MONROE, M. D., Davidson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

THE TOBACCO HABIT.

Dr. Matthew Woods recently read a paper before the Alumni Association of the University of Penn. in which he expresses his views upon the "Minor Immoralities of the Tobacco Habit." We had become pretty well settled in the belief that alcohol was responsible for a very large share of human ills, and a certain book, usually held to be authoritative, says that the love of mammon is at the root of all evil, but Dr. Woods somewhat destroyed our equipoise by his lurid catalogue of the flagrant vices having their origin in nicotine. Strange to say, the chief evil of the tobacco habit, in his opinion, lies in the fact that the use of the weed conduces to a feeling of contentment and satisfaction with one's surroundings, for "discontent," says he, "is the originator of reform; the mother of science, literature and art; the maker of beauty, the divine cause to which we are indebted for the amenities of social intercourse and all the buoyant exhilarations of modern life. But for it, Luther would have remained a monk; freedom of speech, tolerance in religion, rights of private judgment, liberty of conscience would have been unknown, the Declaration of Independence unwritten."

Fortunately for us, tobacco was unknown in the days of Columbus, or wrapped in its seductive fumes he might have remained content with a flat earth and an undiscovered Western hemisphere.

The sad plight of the workingman who is the degenerate victim of the pipe is thus described: Returning from the work of the day with a pittance about sufficient for bread, larder empty, children half clad, wife worn out with the overwhelming perplexities of the day, the home and its misery presenting a spectacle that appeals to his better nature, and for a time "wrapped i

the worldly creed of prudence," he is under the influence of that discontent that would soon affect a betterment of his estate. He is a teetotaler, perhaps, with scruples against beer, but there on his mantel, void of ornament, lies a pipe black with the stains of long usage, and soon under the power of its discontent-dispelling influence, what cares he for the misery of his condition, the cough of his pallid wife, the helpless cry of half-fed children, the tawdry emptiness of his spare apartments, for with a garrulous newspaper in his hand and a pipe in his mouth, is he not translated into the listless paradise of self-complacent minds where care does not enter; and "the slavery holds him within this sepulchre of ambition," and will not let him go until the grave closes over him, a tobacco-saturated victim of self-indulgence, his orphaned children too often a care on the State?

Had the Doctor not positively informed us that tobacco was the cause of the above pitiful condition, we should have diagnosed it as a case of chronic alcoholism.

Dr. Wood's argument against tobacco is an original one, and we much fear that if it really possessed to the extent he describes, the wonderful powers of robbing a man of his discontent, or producing a form of cerebral flatulency out of all proportion with his surroundings, its habitues would be rapidly on the increase. We cannot overlook the fact, however, that the world has made greater progress since Raleigh first introduced tobacco, than ever before and the spirit of unrest has certainly not decreased, though the use of tobacco had very little to do with it in either case.

Every physician will agree with the author of this interesting paper in so far as what he says applies to the physical evils resulting from an excessive and improper use, but as a cure for a discontented mind we have known some lovers of the weed who excelled as "calamity howlers."

SPECIAL ISSUES OF THE JOURNAL.

This number of the JOURNAL has been especially devoted to the consideration of the Stomach and Intestinal Diseases so common during the spring and summer months. It is a subject which we believe will be of unusual interest at this time, particularly as regards children.

The idea of a special issue of a medical journal given up to the discussion of a certain disease, or class of diseases, while not entirely new, is still something of a departure, the success of which must be to some extent at least problematical.

We cannot help feeling, however, that an occasional issue of this character will be both interesting and instructive to our readers, and if such prove to be the case, it is our intention at stated periods to print a number as far as possible given over to the consideration of some definite subject. Such an undertaking involves an extra amount of work and expense on the part of the editors, but if the plan meets with the approval of our professional readers we shall cheerfully take up the burden. Meanwhile we shall be pleased to have an expression of opinion from any of our medical friends.

News and Items.

Vaccination.—In the editorial on smallpox in the JOURNAL of April 5th, we gave Dr. Hutchins' method of vaccination. Several physicians have informed us that they have, since reading this paper, tried Dr. Hutchins' plan and are much pleased both with the "modus operandi" and the results.

Reed and Carnrick's Removal.—On April 1st, the above well known firm moved into their commodious new factory building at Nos. 42, 44 and 46, Germania Avenue, Jersey City, N. J. Their post office address is P. O. Box No. 3040, New York City. We congratulate this enterprising firm on the growth of their business which renders this enlargement necessary.

The Antikamnia Chemical Co. have prepared and are mailing to every english speaking physician in the world a "Foetation and Parturition Chart" by Louis Crusius, A. M., M. D. This chart contains 23 colored illustrations of the Human Embro beginning with the second week and ending with a natural size picture of the foetus at about $4\frac{1}{2}$ months. Accompanying these illustrations and explanatory text is the Antikamnia Parturition Tables giving at a glance the date of termination of gestation.

The Reidsville Sanitarium.—Drs. J. C. Walton and J. A. Williams opened a hospital for the treatment of medical and surgical cases in the thriving town of Reidsville, N. C., in February last and have met with gratifying success. Our home people are beginning to learn that they can obtain scientific surgical attention in institutions located in Carolina, and many who a few years ago would have gone North for treatment are now finding health and returning strength in hospitals in our Southland, in charge of Carolina physicians and surgeons. Drs. Walton and Williams are young men of promise and will succeed—in fact success is theirs already—and they deserve it.

Bartlett, Garvens & Co.—Messrs. W. Frank Powers and Robt. E. Anderson have purchased the entire business interest of the above named surgical instrument firm in Richmond, and will increase the stock and facilities. Mr. Anderson has been associated with the firm for seven years, and is fully posted regarding the wants of its patrons. The old firm did a good business, and with increased stock and facilities together with an extensive knowledge of the business and a fixed determination to succeed along the line of true business principles—it would seem to us that the prospects of Messrs. Powers and Anderson are bright. We wish them the success they deserve.

The Good Effects of Vaccination.—As an illustration of the good results that follow the systematic observance of vaccination and hygiene, attention is called to the present condition of Holguin, Cuba, as compared with its condition a few months since. A few months since we mentioned that Dr. Woodson on occupying Holguin found that smallpox was epidemic there and had been for several years; that he cabled the authorities at Washington for 1,000 cots and a quantity of vaccine lymph. We called attention to the

fact that here would be exhibited a forcible illustration of the value of vaccination. The following item from the *Medical News* explains itself:

"Captain Woodson, surgeon in the Regular Army, reports that the smallpox epidemic in Holguin District has been totally exterminated. The disease had prevailed there for twelve years under the Spanish administration, but was vanquished in three months by the scientific methods of the Army. More than 10,000 persons were vaccinated, and 1,200 patients with smallpox were cured. Not a single American soldier contracted the disease, although they did guard-duty at the lazarettos. The sanitary condition of the district is now almost perfect.

In a letter to Dr. Paul B. Barringer, Chairman of the Faculty of the University of Virginia, Dr. George C. Worth, a medical missionary attached to the Presbyterian station at Kiangyin, China, sends these interesting notes:

"When I first came out here everything was so entirely different from what I had ever seen before that I was almost surprised to find that diseases were not different. The ordinary run of cases is about what one would find in a clinic at home. There are some differences; for instance, I occasionally have cases of leprosy. Elephantiasis is not uncommon, usually of the leg, but often of the scrotum. The whole land is soaked with malaria of every form. For this I use cinchonideia, which is much cheaper than quinine and seems to be as effective in the majority of cases, given in doses one-third larger than quinine. The Chinese are *very* susceptible to the effects of quinine. Last year I treated about five thousand patients; at the rate my clinic has been running this year the total will be about seven thousand. The most troublesome cases that I have are the attempted suicides—mostly opium. They are often long distances away, and, like obstetrical cases, seem always to happen at night. Last year I was called to an obstetrical case and found a transverse presentation. The arm had prolapsed and had been *pulled* off by the midwives, my finger, on examination, coming against the exposed ribs. This case being successfully delivered by version, I soon after was called to one of the prominent families to a similar case. Since that time I have had a number of difficult obstetrical cases, most of them transverse presentations with prolapsed arm and cord. They usually call me about the third day, after the woman is exhausted with pain and the fruitless efforts of the midwives. Thanks to Dr. Dabney's instruction and my experience in the City Maternity Hospital in New York, I have been successful in every case, and have even saved a baby or two. Every Chinese woman, rich or poor, high or low, must sit up during parturition. They are never allowed to lie down. They sit over big wooden tubs into which the babies are born and which afterward serve as cradles. These tubs are *always* painted bright red and form a most conspicuous as well as *invariable* item among the bride's wedding presents."

Dr. Worth, above referred to, is an old Wilmington boy, and his many friends in the State and elsewhere will be pleased to hear of his good work in his devoted calling.

Book Reviews.

A Text-Book on Practical Obstetrics. By EGBERT H. GRANDIN, M. D., Gynæcologist to the Columbus Hospital; consulting Gynæcologist to the French Hospital; late Consulting Obstetrician and Obstetric Surgeon of the New York Maternity Hospital; Fellow of the American Gynæcological Society, etc. With the Colaboration of George W. Jarman, M. D., Gynæcologist to the Cancer Hospital; Instructor in Gynæcology in the Medical Department of the Columbia University; late Obstetric Surgeon of the New York Maternity Hospital; Fellow of the American Gynæcological Society, etc. Second Edition. Revised and Enlarged. Illustrated with Sixty-four Full-page Photographic Plates and Eighty-six Illustrations in the Text. $6\frac{1}{2} \times 9\frac{1}{2}$ inches. Pages xiv-461, Extra Cloth, \$4.00 net; Sheep, \$4.75 net. The F. A. Davis Co., Publishers, 1914-16 Cherry St., Philadelphia.

The authors, in their preface, tell us that every effort has been made to state the facts of Obstetric Science in the clearest possible manner, devoid of any unnecessary Theoretical or Pathological discussion. They have succeeded in their object. Every detail of any Obstetrical operation, all well established points of diagnosis and management are set forth in a definite way so that the reader is not clouded by a multiplicity of statement on the same subject. It will thus prove of great value to the busy practioner who often has not the time to search a mass of literature in order to find the exact information he desires. The book is eminently practical, dealing with facts and conditions rather than with theories, is profusely illustrated and thereby approximates as nearly as a book can the clinical method of teaching.

The new edition has been thoroughly revised and the more recent additions to our knowledge of obsteteric surgery and the management of the puerperal state recieve especial attention. We can cordially recommend the work to any one who wants a text book on obsteterics that will be of help to him in his every day work.

An American Text-Book of Diseases of the Eye, Ear, Nose and Throat.—Edited by G. E. DeSchweinitz, A. M., M. D., Professor of Ophthalmology in the Jefferson Medical College, Philadelphia, etc., and B. Alex. Randall, M. A., M. D., Ph. D., Clinical Professor of Diseases of the Ear in the University of Pennsylvania, etc. Illustrated with seven hundred and sixty-six engravings, fifty-nine of them in colors. 1251 pp. Price, cloth, \$7.00; sheep or half-morocco, \$8.00 net. Philadelphia: W. B. Saunders. 1899.

In the portion of this work devoted to the eye, its embryology, histology, anatomy, physiology, diseases and injuries are discussed by twenty-four authors, in as many sections; its operative surgery in seven sections by as many authors, while certain practical details in the examination of railroad employees and others for color-blindness, etc., receive attention in an appendix. Standards of vision both as regards visual acuity and color sense required by railroads; micro-organisms that sustain a causative relation to ocular disease; the x-ray in eye surgery are each the subject of a special article.

In the portions of the work devoted to throat, nose and ear, anatomy, physiology, diseases, and injuries are discussed in thirty-three sections by as many authors.

Throughout the whole volume the "practical side" is kept well to the front and the articles are all worthy of the places they occupy. The editors are men of ability who have earned their reputation by hard work, and this volume does them credit. The illustrations are good, the paper, printing and binding all that could be desired.

The Ready-Reference Hand Book of Diseases of the Skin.—By George Thomas Jackson, M. D., Professor of Dermatology, Woman's Medical College of the New York Infirmary and in the Medical Department of the University of Vermont, Chief of Clinic and Instructor in Dermatology, College of Surgeons, New York. New (3rd) edition. In one 12mo. volume of 638 pages, with 75 illustrations and a colored plate. Cloth, \$2.50; net. Lea Brothers & Co., Philadelphia and New York.



The early exhaustion of the second edition of this work is a gratifying indication of the favor with which it is regarded by students and practitioners. All dermatological advances made in the interval are fully presented in the new edition by revision and by the addition of new matter and illustrations.

The alphabetical arrangement of the book having proved acceptable, has not been changed, and practitioners, students and specialists will find it as heretofore a most concise and readily available source of knowledge on all dermal affections, their etiology, symptoms, diagnosis, treatment, prognosis, etc.

It is a work calculated to be of unusual value to the general practitioner, being rich in illustrations, a specimen of which we have reproduced.

Gerrish's Anatomy by American Authors.—Gerrish's forthcoming *Anatomy by American Authors* promises to be the work for which teachers and students have long been looking. Its editor, Prof. F. H. Gerrish, of Portland has selected as his fellow-contributors leading anatomists throughout the country, wisely restricting their number to accord with the best division of the subject, gaining thereby unity in result joined with the highest authority. The list includes Professors Bevan of Rush in Chicago, Keiller of the University of Texas, McMurrich of the University of Michigan, Stewart of the University-Bellevue College in New York, Woolsey of Cornell Medical College likewise in New York, and Gerrish himself, who is not only editor but perhaps the largest contributor.

The plan of the work judiciously avoids the unimportant and exceptional, reserving its space for those portions of anatomical knowledge which are necessary to the intelligent study of physiology, surgery and internal medicine. The authors have endeavored to stand in the place of a living teacher to the student, selecting such portions as will be of actual service to the pupil in his study and to the practitioner in his subsequent clinical work, clarifying obscurities, giving most help in the most difficult parts, and illustrating everything by all available methods. Pictorially *Gerrish's Anatomy* will be by far the most lavish work ever offered on a subject which can already boast of many elaborately illustrated text-books. They number about one thousand, their size is large enough to make visible every detail, colors have been employed more liberally than ever before, and lastly the labels of the parts have been conspicuously engraved upon them whereby a glance gives not only their names but also their position, extent and relations, obviating entirely the slow, toilsome and wasteful mental processes necessitated where only reference letters are employed.

In an early issue we shall give our readers a review of the book itself.

Review of Medical and Surgical Progress.

Operation for Typhoid Perforation.—Dr. Hugh M. Taylor, (*Va. Med. Semi-Monthly*) reports a case in which repair of the intestines was done after perforation by a typhoid ulcer with successful results. The case was that of an interesting little boy who had been sick with typhoid fever for six weeks; was then convalescent two weeks; fever again for ten days; and convalescence again apparently assured. The father reported that the child had slept well all night, but awoke about 6:30 with a sharp pain in his abdomen which lasted only a few minutes and was followed by a natural fecal action. A dose of syrup of figs was at once followed by vomiting, the vomiting being repeated several times. There was another short attack lasting only a few minutes, after which the child insisted that he was all right and had no pain. While perforation was suspected the child was not sick enough apparently to justify such a suspicion. He expressed himself as being without pain, and his untroubled countenance confirmed this assertion. There were no evidences of shock, and those who saw him at the outset of the sharp attack could not say that even then he presented any of the symptoms of shock. His pulse was now 115, and his sublingual temperature 101° F. Respiration was not noticeably increased, and his *morale* was exceptionally good; there was, however, some appreciable rigidity of the abdominal muscles. An absence of fever for several days, the sudden onset of pain and vomiting, a recurrence of fever, and rapid pulse, plus the abdominal rigidity, was the group of symptoms which made me fear a perforation.

The author recited the symptoms thus minutely to impress the fact that perforation may occur with only minor manifestations, or, in fact, with no symptoms at all. The child was taken to the hospital at which time the pulse had reached 140 while the temperature was only 100.5° F. The operation was done fifteen hours after the first onset of the symptoms the incision being made over the cecal region, thus giving access to the appendix as well as to the lower end of the ileum, in the last eighteen inches of which a large majority of typhoid perforations are known to occur.

On incising the peritoneum, a quantity of sero-purulent fluid escaped from the peritoneal sac, but no gas. The cæcum was quickly delivered, and not more than twelve inches of the small bowel was examined before the punched-out, pencil-sized hole in the ileum was discovered. There was but little if any appreciable inflammatory change about the intestinal lesion; in fact, it looked as if a cobbler's punch had been driven into a healthy bowel and a circular section punched out. To close the opening with deep mattress and Lembert sutures was the work of a few minutes. In ten minutes from the time the section was begun, the abdomen was opened, the lesion found, and sutured. This fact as to the time consumed is not mentioned to extol rapid work, for not infrequently rapidity of operating is at the expense of thoroughness. We would, however, impress the idea that the technique

of dealing with typhoid perforations may be very simple and quickly completed. Upon first thought, it looks like desperate surgery to subject to celiotomy the cadaverous looking patient, ill with typhoid fever for weeks, with the added prospect of prolonged anæsthesia, extensive evisceration, etc., to find the suture the bowel opening, but knowing the usual site of the lesion, near the ileo-cæcal junction, we have, in all instances, a starting point from which to begin our search.

In addition to the free discharge of sero-pulent fluid from the peritoneal cavity, a number of flakes of lymph were discovered, and not more than half an ounce of greenish looking fecal fluid was found puddled near the perforation. Suppurative peritonitis was obviously quite general. No effort at walling had been made. No one who saw this clean cut perforation, with not the slightest trace of adjacent plastic peritonitis, could fail to be impressed with the idea that death was inevitable without surgical intervention. Twenty minutes more was consumed in eviscerating the patient, in wiping the intestines, in thoroughly irrigating with hot saline solution the abdominal cavity, and in placing multiple gauze drainage. In thirty-seven minutes from the beginning of the operation, the patient was removed from the table to his bed. Let me here remark that twenty minutes of this time could probably have been saved if the patient had been operated upon in the morning. At that time, it would probably have been best merely to have sponged off the soiled area, and drainage might have been dispensed with.

It has now been four weeks since the operation was performed. Convalescence has been uneventful, and recovery is assured. Statistics should now read, 61 operations, 14 recoveries.

Removal of Seven Hundred and Five Pebbles from the Bowel of a Child.

—Dr. Eugene Argo, (*Ala. Med. and Surg. Age*) reports the following remarkable case :

I was called to see Charley McCarty September 12, age six, male; found him suffering with pain, griping and tenesmus, with frequent desire to stool and passing nothing but a muco-sanguinous discharge, with some elevation of temperature. On further inquiry I found history of dirt eating which his peculiar sallow appearance would readily reveal. His father had kept him guarded, and in the house for some weeks to break him of his liking for dirt. Finally one afternoon he went at large, and I suppose clay not being very accessible, and the pebbles being in great abundance, he proceeded to satisfy his peculiar appetite by filling his stomach with these little rocks. On examining his bowels, I found the abdomen apparently full of these pebbles. They had lodged in the rectum until a complete impaction had come about. Manipulation over the abdomen would remind me very much of grit in a chicken gizzard. I introduced my finger into the rectum for the purpose of clearing it, but the pain was so great and the contraction of the sphincter was such that I resorted to chloroform anæsthesia. After removing a lot of the pebbles with an ordinary pair of forceps, I gave an enema of castor oil, and cleared the lower portion of the rectum with my finger. Finding still more "rocks" higher in the bowel, I gave a number of enemas of warm water and soap. With massage, enemas, oil and endurance, I finally removed in number seven hundred and five pebbles.

Eye, Ear, Nose and Throat Department.

In charge of **W. H. WAKEFIELD, M. D.,** Charlotte, N. C.

New Instruments for Excision of Tonsils.

It is conceded by all physicians of large experience in the treatment of throat and nose diseases that enlarged tonsils and adenoids should be removed surgically, and the market is flooded with instruments for that purpose.

The following paper is reproduced from the Journal of Am. Med. Ass'n. as it advises a mode of procedure in the removal of tonsils that is, perhaps the best. [I use the instruments in my practice and am pleased with them. —ED.]

The author, **W. H. Peters, B. S., M. D.,** Lafayette, Ind., says :

As to the anatomy and pathology of the tonsil, I will only say that the normal throat has nothing of the kind in it. And as to treatment, nothing but complete removal of the diseased glandular mass gives the desired relief.

Many plans are in use to accomplish this. The guillotine will slice off the tonsil, and in children, if the claws which complicate it are removed and suitable forceps used in their place, the guillotine is fairly satisfactory, but hemorrhage is free.

Though not dangerous in children, this hemorrhage is troublesome, because it interferes with the simultaneous removal of the pharyngeal tonsil, which is almost invariably present.

In the adult, however, this hemorrhage is a serious matter and has been fatal in many cases. To avoid this, Barnett and other authors recommend that a snare be used—the growth being cut through gradually—several hours being consumed in the operation. The method is worthy of the Inquisition.

The galvano-cautery loop I must condemn by using Burnett's own words: "We may resort to the cautery in suitable cases, which are certainly exceptional, with a feeling of security and with the expectation of getting a thorough and satisfactory result."

My personal experience with the cautery loop has been confined to a single case, in which acute otitis media resulted on the fourth day.

Other authors have devised an array of scissors, cutting forceps and knives which do the work well, but the operation is a bloody one, requiring general anæsthesia and an hour's time to complete it.

Igni puncture is too tedious, months being required and a bad cicatricial stump remaining.

The guillotine, then, with its limited usefulness; the ordinary snares, with the prolonged torture and shock, certainly indicate a demand for something different.

Here let me say that the tonsil must be completely removed; that tonsils which absolutely demand removal are often deeply imbedded or diffused over a surface of an inch and a half by two inches in size. In tonsils of the kind named, the guillotine and cautery snare are useless.

In 1888 I devised a tonsil snare which was finally perfected in 1890, and has been in almost daily use ever since, with such satisfactory results that I beg to present it to you.

The instruments I show you belong together. In small children, chloroform is used. In children over ten years of age and in adults it is unnecessary. In children, the fenestrated tip recommended by Dr. Vedder, of Pitts-



Length of Snare Handles, $8\frac{1}{2}$ inches.

burg, is always used, and the suggestion he makes to form the wire loop around a piece of hard wood is valuable.

The operation is performed as follows :

In infants, the child under cloroform ; the patient lies upon a couch, with his head toward an artificial light four feet away ; my assistant kneels at the patient's head and I stoop over the patient at the side. The instrument has been prepared as you see—two extra fenestrated tips being held in reserve. Here let me say that the screw adjustment in this instrument is never under any circumstances used except to regulate the size of the loop before operating. The patient's tongue is held down by myself or my assistant, as the case may require. If the tonsil is prominent, no forceps are used, and I hold the tongue depressor myself. If not prominent, the forceps are passed through the loop, the tonsil seized, the traction made, and with a single stroke the tonsil severed.

The other tonsil is removed at the same time. The operation up to this time is bloodless, and now the index finger explores the naso-pharynx for adenoid trouble. If present, and it usually is, the mass is removed by Gottein's curette. This operation has taken less than a minute, and the child is rolled to the edge of the couch, with his face immediately over the opening of a fountain cuspidor. (This latter is of my own design. It takes care of any vomited matters, etc., though vomiting is very rare.)

In adults a 25 per cent. solution of cocaine is applied around the tonsil and in its crypts, and the tonsil is seized, drawn through the loop and severed by a single stroke.

In some tonsils, one in six, perhaps, some dissecting is necessary, and this requires only two or three rapid strokes of the knife.

The patient himself, even among children, holds the tongue down with a tongue depressor while the operation is being performed.

In many cases of diffused tonsils a second or third application of the snare, without the patient leaving the chair, is necessary.

As a rule, the hemorrhage does not exceed a few drops. Only in one case has it been sharp—in that of Miss Hattie K., 14 years old, living at



Length of forceps, 8 inches.

Rensselaer, Indiana, Dr. Burkley being present. In that case the tonsils were enormous, and there was a sharp gush of blood, about two ounces in all, but it stopped kindly, and in no way alarmed the child or rendered me uneasy. She returned a week later and had the second one removed—the same phenomenon recurring.

I have never seen a drop of secondary hemorrhage from any tonsil.

The snare handle should be made of machinery or soft steel—not tool steel—and of the full size shown. A worthless imitation of this snare is on the market in Chicago. It is too light to be of value. The forceps are easily aseptic and have a wide range of usefulness.

Bosworth's special tonsil snare is altogether too weak, as he himself admits. The snare I show will easily remove any tonsil instantaneously, no matter how hard it may be.

I use No. 10 piano wire, as No. 5 is too light; I have broken it. The No. 10 wire can be obtained from Wm. H. Armstrong & Co., Indianapolis, Ind., who make these instruments.

This operation, the instant ecrasement of the tonsil with cold snare, is original with me, I think, and the instruments employed certainly are original. I use these instruments in the removal of lingual tonsils. *Never use a wire the second time.*

AFTER TREATMENT.

In children there is little or no pain following and no treatment necessary. In adults—no matter how the tonsils are removed—there will be pain following the operation, except in such individuals as are by nature insensitive. The pain is less in ordinary enlargements where the gland can be wholly removed at a single stroke; but in every case there is a raw surface which will be irritated by swallowing. The patient is ordered to gargle the throat with hot water, to avoid sour and salted foods, and to eat chiefly crackers and milk and medium-boiled eggs, for twenty-four hours.

Therapeutic Hints.

Acute Dysentery. .

R Magnes. sulphat ℥i.
Ac. sulphuric. dil. ℥i.
Aqua ℥iv.

M. Sig. Tablespoonful every 3 hours until proper evacuation ; then enema of starch and laudanum.

Standard Prescription for Sick Stomach or Diarrhœa.

R Sacchari albæ ℥i.
Aq. camphoræ ℥iij.
Spts. lavender comp. ℥i.

M. Sig. Dose, tablespoonful.

Diarrhœa Mixture Without Opium.

R Tr. camphor ℥i.
Tr. capsici ℥ss.
Tr. lavender co. ℥i.
Spts. vin. gal. q. s ad ℥ii.

M. Sig. Teaspoonful every 2 or 3 hours.

—REX.

Infantile Diarrhœa.

R Bismuth. subnit.
Pulv. myristicæ aa ℥i.
Cretæ Prepar. ℥j.
Syr. Zingiberis ℥iss.

M. Sig. Teaspoonful every 2 or 3 hours.

For Subacute Diarrhœas in Children.

R Tr. Columba ℥iij.
Liq. Ferri Nitrat. gtt xxiv.
Syr. simplicis q. s. ad ℥iij.

M. Sig. Teaspoonful t. i. d.

—SMITH.

Vomiting in Children.

R Potas. bicarb. gr xxv.
Ac. citric gtt xvij.
Aq. Amygdolæ amaræ ℥i.
Aqua ℥ij.

M. Sig. Teaspoonful every time vomiting occurs.

—HOLT.

Flatulency and Colic in Infants.

R Spts. juniper comp. ℥iis.
Glycerin. ℥iss.
Aq. anisi q. s. ad ℥ii.

M. Sig. Teaspoonful in hot water as required.

—HATFIELD.

General Tonic :—

R Strychinæ sulphatis, gr. 1-60.
Acidi phosphorici diluti, m. v.
Ferri phosphatis, gr. j.
Quininæ bisulphatis, gr. j.
Glycerini, ℥ss.
Elixir aurantii, q. s. ad ℥ss.

M. et ft. sol.

Sig.—Take before each meal.

—Winslow Anderson, "Medical Record."

For Follicular Pharyngitis :—

R Iodine, 3 grs.
 Potassium iodide, 5 grs.
 Trichloracetic acid, 7 grs.
 Glycerin,
 Water, aa ½ fluid oz. M.

To be applied locally. (The strength may be varied to meet the exigencies of the cases.)

—*Tri-State Medical Journal.*

Dr. Bucknum had this to say: "I have cured more cases of eczema with the following local application than with any other that I have ever used."

R Acid salicylic gr. x.
 Hydrarg, chlor. mite. grs. xv.
 Zinc oxid. ʒ ii.
 Lanoline.
 Carbolyzed vaseline aa ʒ ss.

M et Sig :—Apply locally night and morning.

—*Col. Medical Journal.*

For Spasmodic Asthma :—

R Ammonii bromid. ʒ vi.
 Ammonii iodid. ʒ iii.
 Tinct. lobelia f ʒ i.
 Syr. tolu q. s. ad fld. ʒ iv.

M. et Sig :—Take one teaspoonful in water every three hours.

—*Bucknum Col. Med. Journal.*

Ovarian Neuralgia :—

R Ext. Belladonnae, gr. iv.
 Ext. Stramonii, gr. v.
 Lactophenvin, dr. iss.

M Ft. Pil. No. XX. Sig. Two or three pills a day.

MARTIN—*Med. News.*

Cathartic Pills :—

R Extr. aloes,
 Extr. rhei,
 Pulv. rad. rhei, aa 2 gm.
 Extr. colocynth, 0.3 gm.

M. ft. pil. No. lx. S. Three to four pills before retiring.

—NOTHNAGEL.

For Infantile Diarrhoea (Mikhrevich, "Month. Cyclop. Prac. Med.") :

R Bismuth salicylate, 24 grs.
 Gum arabic, 1 drachm
 White sugar, 1½ drachms
 Water, to make 6 fluid oz. M.

To be kept on ice.

SIG.—From one to two teaspoonfuls to be given three to six times a day.

R Mercurous chloride, 2 grs.
 Zinc sulphocarbolate, 3 grs.
 Pepsin, 30 grs.
 Bismuth subnitrate, 2 drachms. M.

Divide into 12 powders.

SIG.—To a child one year old, one powder three times a day.

—*Tompkins, "Month. Cyclop. Prac. Med."*

For Anal Fissure :

Europfan, 1½ grains.
 Cacao butter from 15 to 45 grains.

Mix and make a suppository. To be introduced into the rectum after the employment of a cleansing enema.—*La Presse Medicale.*

Tannalbin in Dysentery.—Waedemon¹ has used tannalbin in 200 cases of diarrhea with excellent results. In nurslings particularly, and in very young children, tannalbin was found to be especially useful, being successful in cases where other remedies had failed. Among the 200 cases were 171 children, of whom only two died, having come under treatment too late. Among the adults equally good results were secured, 14 out of 15 cases of dysentery being cured. Excessively frequent and bloody stools in a case of typhoid were immediately checked by the tannalbin. The best results were obtained by recurrence to large doses. To nurslings, 3 Gm. (45 grn.) were given daily, administered in a mucilaginous vehicle; adults received up to 10 Gm. (2 ½ dr.) even, daily, without the slightest inconvenience.

The author recommends tannalbin in all cases of infantile diarrheas, and believes it to be a veritable specific, and much superior to the remedies ordinarily employed in this class of affections.

¹ Annal. de la Soc. de Med. de Gand, lxxvii, p. 277.

Acute Nephritis.—Dr. J. M. Da Costa (*Coll. and Clin. Record*) gives his treatment of acute nephritis as follows:

I give pilocarpine hypodermically, every two hours, until I secure free action from the skin. If preferred, the pilocarpine may be given by the mouth; but I prefer, in these cases, to give the first dose hypodermically. In addition to this, I give the lactate of strontium, fifteen grains at a dose, four times daily. This drug is one of the most efficient, non-irritating diuretics that we possess; in addition, I am a believer in dry cupping over the kidneys, and in the use of hot vapor baths.

There are three drugs in acute nephritis which, to my mind, stand out with considerable sharpness above all others for efficiency—pilocarpine, digitalis, and strontium. I am particularly pleased with the value of strontium, which I consider indispensable in many of these cases. In this case we find that the quantity of urine, under this treatment, has steadily and rapidly increased from eight ounces on the first day to thirty-six ounces daily, then to forty-four ounces, then up to fifty-five ounces, while for the last twenty-four hours our patient has voided thirty-five ounces, which diminution our resident explains by the fact that the patient was given a hot bath. As to the ingredients of the urine: it now contains the normal quantity of urea, there are still some albumin and tube casts, but the blood has disappeared.

We will continue the treatment, keeping the patient on a milk diet, and using dry cups over the kidneys.

Dyspepsia of Phthisis.—For general use nothing can excel an alkaline mixture consisting of soda bicarbonate (15 grains), tincture of nux vomica (10 minims), and compound infusion of gentian (1 ounce), given before meals. If a sedative action be desired, dilute hydrocyanic acid may be substituted for nux vomica. The good effects of this mixture are witnessed not only by increase of appetite and relief of the dyspeptic symptoms, but at the same time expectoration is facilitated, whereby the cough is indirectly relieved.—Percy Kidd, in *Allbutt's System of Medicine*.

Reading Notices.

A FOOD IN INTESTINAL CATARRHS IN CHILDREN.—In a dissertation presented to the University of Bonn, Dr. Otto Oberlaender reports 15 cases of acute and 13 cases of chronic intestinal catarrh in which excellent results were derived from the use of lacto-somatose, both as a food and astringent. In many cases a cure resulted in three, or even less days; in a few after the administration of one to two teaspoonfuls of the preparation. In cases in which recovery did not ensue until the lapse of a week or more, the digestive disturbances had been present for a long time, or were of marked severity. In some of these cases also the administration of the preparation was discontinued too early, so that recurrences took place. In order to avoid these, therefore, the administration of lacto-somatose was continued for a number of days, even after a complete cure had been effected. The preparation was always well tolerated, and while devoid of any decided astringent affect, it exerted a favorable influence upon the intestinal mucosa, and at the same time supplied to the patient a sufficient amount of highly assimilable nourishment to tide him over the critical period of the disease, acting as a perfect substitute for other nitrogenous food. It is, therefore, recommended by the author in all conditions of fever and marked waste of albuminous tissues, in all acute conditions of exhaustion from loss of blood, as well as in diseases of the digestive tract in which it is desirable to avoid any mechanical irritation of the gastric mucous membrane.

CHRONIC GASTRIC CATARRH OF TEN YEARS STANDING.—George Reynolds, Stamford; American; age 56. October 8th, came to me presenting the following symptoms: loss of appetite, disagreeable feeling of gnawing and at times fullness in the stomach; tenderness at the epigastrium, but slightly influenced by eating; prominence of the epigastrium; morning vomiting, consisting of glairy mucus raised after great retching; constant thirst, water and at times stimulants being craved; often great burning at the pit of the stomach; bowels constipated; urine high colored; a feeling of mental depression; sleeplessness, with occasional attacks of vertigo; follicular pharyngitis of an aggravated type; much loss of flesh; muscles relaxed and the skin dry. The patient had suffered with this condition for ten years, and in spite of all treatments employed had been growing steadily worse.

I put him on the following course of treatment, after thoroughly regulating the bowels and secretions: a teaspoonful of bovine in milk every hour; to allay the thirst he was given half a teaspoonful of bovine in half a glass of ice water, as necessary. At the end of the third day the quantity of bovine was increased to a tablespoonful every two hours, this was continued up till the 19th, when the bovine was again increased to a wineglassful every three hours; at this time the morning vomiting had ceased, the pain in the abdomen had disappeared, and he had gained three and a half pounds in weight; treatment continued. October 29th, patient's condition splendid, feels hungry, but is still satisfied with the bovine and milk; treatment continued. November 8th, patient said he was well, all symptoms had disappeared, and he was now allowed a light general diet; from the beginning of the blood treatment up to the present time having taken absolutely nothing but the bovine and milk. November 12th, patient discharged cured, had gained twelve and three-quarter pounds in flesh, and was feeling splendidly.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIII.

CHARLOTTE, MAY 5, 1899.

No. 9

Original Communications.

An Unusual Case.

By M. R. ADAMS, M. D., Statesville, N. C.

IN submitting the following report of a case that recently come under my observation it is not inappropriate to remark that the singularity of the case and the absence of any parallel recorded in any of the medical authorities which I have had an opportunity to consult, suggests the skepticism with which it may be received by the fraternity. I therefore desire to preface this brief report by stating that three well known physicians of this community will substantiate the facts herein set forth in regard to this case. I am especially indebted to Dr. W. J. Hill, who very kindly gave me his notes in the case. Eliza C., a bright mulatto, aged forty-seven, married, mother of five children, has uniformly enjoyed good health. Sometime during the winter of 1891-'92 she ceased to menstruate, the exact date could not be ascertained. As there was a gradual and progressive enlargement of the abdomen together with other symptoms that usually accompany pregnancy, she very naturally thought she was pregnant, and later on when the movements of the child were distinctly felt, her surmises were confirmed. The case progressed favorably without any special event up to the following August, when symptoms suggestive of labor set in and a *midwife* was sent for. After having the usual prodromal symptoms of labor for ten or twelve hours, and not being satisfied with her progress her husband sent for the family physician, Dr. E. A. Hall, on August 17th, 1892, and after making a careful examination, general and vaginal, he decided she was not in active labor, but was satisfied that the symptoms would induce labor at an early hour and left her in charge of midwife, this being satisfactory to all parties concerned. Nothing more was heard from the case until the following October 7th, when again the family physician was called in, and to his surprise found patient with all the objective signs of advanced pregnancy and apparently in labor, with all the prodromal symptoms present, as found on his first visit, August 17th, but on vaginal examination no softening or dilatation of the os uteri was found.

On account of the peculiar features of the case, a consultation was suggested and held after which no active measures were taken. The patient being in general good health was advised to wait further developments. About, or a short time after this date, at irregular intervals, probably every month or six weeks, there was a decided flow from the womb simulating the menstrual flow, in fact she regarded it as such. Patient continued to improve and got so much better that she was able to resume her domestic duties, and felt as well as ever, in fact her friends regarded her as being fully restored to health. There was no material change in patient's condition until November 7th, 1898, when a fever of a continued type developed, and later on she became very much emaciated, with marked anorexia persistent nausea and vomiting, diarrhea, the loss of weight from 160 pounds to a mere skeleton, pulse much accelerated 100 to 120 with a temperature usual in septic troubles. The urine was free from albumen. As there was no improvement whatever in the case Dr. W. J. Hill was called in consultation on Jan. 20th, 1899, and after ascertaining the above history determined on an operation, believing there was a condition that could not be relieved in any other way and selected the following method of procedure. The patient being given the best possible preparation for the operation, January 24th 1899 was decided upon as the date for same.

Doctors W. J. and M. W. Hill, E. A. Hall and the writer being present. After a consultation the line of procedure was fully endorsed. After the usual antiseptic precautions in preparing the field of operation with green soap solution, bichloride mercury and alcohol and the use of Arnold's Sterilizer in the preparation of instruments the patient was placed on operating table.

After thoroughly anesthetizing with chloroform and ether an incision was made in median line from an inch above umbilicus to within $1\frac{1}{2}$ inches of pubic bone down to the peritoneum when extensive adhesions were encountered. Then an incision was made through peritoneum into abdominal cavity, a rubber sheet having been prepared to protect the abdominal contents from general infection. The adhesions were then carefully broken up from around the uterus. The incision was carried four inches in a vertical line into the cavity of the uterus. Here we found and removed the osseous frame work of a child fully developed, though entirely disarticulated, which was surrounded by a green, gangrenous, offensive fluid in quantity one quart or more. After the contents of the womb were removed, it was irrigated with a mild bichloride mercury solution.

The womb at this stage of the operation presented the appearance of what had been my conception of the womb in performing its function in normal labor. The interior of the womb presented an abnormal appearance. As expeditiously as possible the womb was sutured with silk worm gut, drainage being maintained through the os uteri below. The peritoneal cavity being carefully washed out with a hot normal saline solution, the abdominal

incision was then closed and treated in the usual aseptic manner. The patient passed through the operation without any marked event.

It might be well to state, however, at this point that patient lived thirty hours after operation. The operation was completed within an hour. This case is not reported on account of any peculiar surgical features that it may possess, but merely on account of the singularity of the case as was remarked in the beginning. The extraordinary fact of a child remaining in its mother's womb for the long period intervening from the time the child is believed to have reached maturity August 17th, 1892 to date of operation January 24th, 1899. Approximately six years and five months without the mother who was a domestic, laboring woman, having scarcely lost a day from her usual work until about two months prior to operation. From the standpoint of the general practitioner this is an interesting case as to its relative merits in the management of labor and the puerperal condition generally.

The Care of the Sick and Wounded in the War of the Revolution.*

BY FRANCIS R. PACKARD, M. D., PHILADELPHIA, PA.

Late Assistant Surgeon, 2nd Penn. Vol. Inf.

THE following proclamation was issued by the members of Congress who were then among the fugitives who were in Bethlehem :

"BETHLEHEM, Sept. 22nd, 1777.

"Having here observed a diligent attention to the sick and wounded, and a benevolent desire to make the necessary provision for the relief of the distressed as far as the power of the brethren enables them, we desire that all continental officers may refrain from disturbing the persons or property of the Moravians in Bethlehem; and, particularly, that they do not disturb or molest the houses where the women are assembled.

"Given under our hands at the place and time above mentioned.

JOHN HANCOCK.

WILLIAM DUER.

SAMUEL ADAMS.

CORNELIUS HARNETT.

JAMES DUANE.

RICHARD HENRY LEE.

NATHAN CROWNSON.

HENRY LAURENS.

NATHANIEL FOLSOM.

BENJAMIN HARRISON.

RICHARD LAW.

JOSEPH JONES.

ELIPHALET DYER.

JOHN ADAMS.

HENRY MARCHANT.

WILLIAM WILLIAMS.

"Delegates to Congress."

On October 7, 1777, the wounded from the battlefield of Germantown began to arrive and by the 22nd there were four hundred patients in the hospital, and fifty in tents, and the doctors announced that they could accommodate no more.

*An address delivered before the Judson Deland Medical Society, January 8th, 1899.

But on the 28th of October, Hospital Commissary Hugh James arrived with orders from Doctor Rush to provide immediately for the reception of one hundred more patients. To fulfil this order they were obliged to put up a number of frame buildings for the doctors, attendants, and guard, so that the sick might be placed in the more substantial houses.

In December the Hospital became terribly over-crowded and remained so into the spring. The ventilation was poor and the place became filthy and putrid fever claimed many victims. There were seven hundred patients crowded at one time into the house of the Single Brethren, which had been previously considered over-crowded by four hundred patients. One reason for this over-crowding is pointed out by Doctor Shippen in a letter to Congress wherein he states that many soldiers who were entirely recovered were obliged to remain in Bethlehem for want of suitable clothing to return to the army in.

Mr. Jordan thinks that the number of deaths in the Bethlehem hospital during this second occupation may be computed at upwards of five hundred. Among those who died were, Doctor Joseph Harrison, Doctor Aquila Wilmot, and Hospital Steward Robert Gillespie, of the hospital staff. The two latter were buried in the "Stranger's Row" of the Moravian cemetery. The reasons for this high rate of mortality are not far to seek. Mr. Jordan gives us the statements of three of the surgeons connected with the hospital, namely, Doctors William Smith, William Brown, and Moses Scott.

Doctor Smith states, "that he had known from four to five patients die on the same straw before it was changed, and that many of them had been admitted only for slight disorders. Of the eleven junior surgeons and mates, ten took the infection, most of them dangerously so, and one, Dr. Joseph Harrison, had died, and of the three hospital stewards, two had died and the third narrowly escaped. Owing to the crowded wards, and the want of almost every necessary, it was impossible to prevent an infection, and that the sufferings of the sick could not be attributed to negligence or inattentions of the surgeons and physicians."

Doctor William Brown says: "That when the hospital was opened it was many weeks without so necessary articles as brooms, and that at last he was obliged to have them taken from the inhabitants of the town."

Lastly, Doctor Moses Scott writes that during the three months which he spent in the hospital, "between eight and nine hundred patients were admitted, thirty-four of whom died, and that owing to the moving of the hospitals in the beginning, it was almost impossible to make exact returns of the sick and wounded. Upon computation, allowing four feet for each patient, we concluded that the house would hold three hundred and sixty without crowding."

Doctor James Tilton¹¹ on his way home from the hospital at Princeton on sick-leave, stopped for a short time in Bethlehem, and he has left us the minutes of an interesting conversation which took place between himself and

¹¹ Economical Observations of Military Hospitals.

several of the surgeons of the Bethlehem Hospital, as follows: "During my stay, it was natural to enquire into the state of their hospital. The method I took was to propose a competition, not whose hospital had done the most good but whose hospital had done the most mischief. I was requested to give an account of Princeton hospital. I stated with all the exaggeration I could with truth, not only an affecting mortality among the sick and wounded soldiers, but that the orderly men, nurse and other attendants on the hospital were liable to the infection, that I had myself narrowly escaped death; and that five other surgeons and mates had afterwards been seized. I was answered that the malignancy and mortality of Princeton Hospital bore no comparison with theirs; that at Bethlehem not an orderly man or nurse escaped, and but few of the surgeons; that one surgeon, Jos. Harrison, a fine young fellow, distinguished for his assiduity, had died, and to give me some idea of the mortality of this hospital, one of the surgeons asked me if I were acquainted with that fine volunteer regiment of Virginia, commanded, I think, by Col. Gibson. I answered I knew it only by reputation. He then went on to say that forty of that regiment had come to that hospital, and then asked me how many I supposed would ever join the regiment? I guessed a third of the fourth part. He declared solemnly that not three would ever return, that one man had joined his regiment; that another was convalescent and might possibly recover, but that the only remaining one besides, was in the last stage of the colliquative flux and must soon die. I was obliged to acknowledge the hospital at Bethlehem had been more fatal than that at Princeton."

Doctor Shippen summed up the causes of the mortality at Bethlehem to be in his opinion, "The want of clothing and covering necessary to keep the soldiers clean and warm, articles at that time not procurable in the country; partly from an army being composed of raw men, unused to camp life and undisciplined; exposed to great hardships, and from the sick and wounded being removed great distances in open wagons."

In the beginning of 1778 the authorities began the removal of the hospital and by the 8th of April the final order for its closure was promulgated. The fever had wrought great mischief to the poor Moravians, seven of the Single Brethren having died during the occupancy of their house, also a son of the Rev. Mr. Ettwein.

Mr. Jordan quotes the report of General Lachlan McIntosh, who superintended the removal of the hospital, to General Washington. This is the only report of the hospital found in the archives at Washington. It states that from January 1st to April 12th, 1778, eighty-one soldiers died, twenty-five deserted, one hundred and twenty-two were discharged and sent to the army; eleven were at the shoe factory (in Allentown), two were attending on sick and wounded officers, and all the rest removed from the hospital."

At Lititz, another Moravian village in Lancaster County, Pennsylvania, a Continental army hospital was established and maintained from December, 1777, until August, 1778.

Mr. Jordan's account of it is fully as interesting as is his account of the hospital at Bethlehem.

Doctor Samuel Kennedy arrived at Lititz on December 14th, 1777, with a written order from General Washington for the inhabitants to provide accommodations for two hundred and fifty sick and wounded soldiers. It was again the single brethren upon whom the blow fell most heavily. They were obliged to vacate their house in spite of many vain expostulations by Bishop Hehl.

On December 19th, eighty sick arrived and the following day fifteen wagon loads more were received. There were but two doctors attached to the hospital. Putrid fever broke out in a few days and both the doctors were prostrated with it, and Doctor Adolph Meyer, the Moravian's physician, had to fill their places until relieved, ten days later, "by a doctor who was a German from Saxony."

There were seven deaths in ten days from the fever, a pretty high mortality, and in January, 1778, it became epidemic, and five Moravians, who were serving as volunteer nurses, and the assistant pastor of the congregation, the Rev. John J. Schmick, died of it.

In January Doctor William Brown, one of the most capable medical officers in the Continental army and author of the first American pharmacopeia, was placed in charge of all the Continental army hospitals in Letitz and its vicinity, and Doctor Francis Allison, Jr., was associated with him.

In March, 1778, the inhabitants, to their great consternation, heard that Doctor Shippen contemplated the establishment of a general hospital at Lititz. The Rev. Mr. Ettwein wrote to General Washington imploring him to countermand any order to that effect that might have been issued.

Washington wrote to him on March 28th, from Valley Forge, to the following effect:

"Sir—I have received your letter of 25th, by Mr. Hasse, setting forth the injury that will be done to the inhabitants of Lititz by establishing a general hospital there—it is needless to explain how essential an establishment of this kind is to the welfare of the army, and you must be sensible that it cannot be made anywhere without occasioning inconvenience to some set of people or other. At the same time it is ever my wish and aim that the public good be effected with as little sacrifice as possible of individual interests, and I would by no means sanction the imposing any burdens on the people in whose favor you remonstrate, which the public service does not require. The arrangement and distribution of the hospitals depends entirely on Dr. Shippen, and I am persuaded that he will not exert the authority vested in him unnecessarily to your prejudice. It would be proper, however, to represent to him, the circumstances of the inhabitants of Letitz, and you may, if you choose it, communicate the contents of this letter to him.

I am sir,

Your most obed't ser't,

GEO. WASHINGTON."

Bishop Hehl wrote to Doctor Shippen about the matter and was answered as follows:

"Sir—I am so much affected at the very thoughts of distressing a society I have so great an esteem for, that you may depend upon it I will not put into execution the proposal of removing the inhabitants of Lititz, unless cruel necessity urges, which at present I don't imagine will be the case. If we should fix the General Hospital and take more room in your village, it shall be done in a manner the least distressing and disagreeable to your flock that is possible, of which I will consult you. I am sir, your and the congregation's affectionate and very humble servant,

W. SHIPPEN."

"Mauheim, 9 April, 1778."

However the necessity for removing the inhabitants of Lititz out of their homes never arose.

General McIntosh reported of this hospital, that from February 1st to April 20th, 1778, "264 wounded and sick soldiers had been admitted to the hospital, that 142 had been discharged and sent to camp; 83 had died and deserted, and 39 were under treatment."

This report also stated, "The accounts of the first doctors cannot be found. This is a convenient and pleasant place for a hospital, and is so near Lancaster, that the same office and surgeons may attend both. The hospitals at Schaefferstown (Lebanon) and Ephrata should be renewed here, as both are very inconvenient."

On the 21st day of August the surgeons were ordered to make preparations for the removal of the patients, and on the 28th they began sending them to Lancaster and Yellow Springs. During the occupation of the house of the Single Brethren, one hundred and twenty soldiers had died in it.

In May, 1776, Congress passed resolutions establishing an army hospital in Virginia, and appointing Doctor William Rickman, Physician and Director General of it. The hospital was located in Williamsburgh and it had been at first intended to convert the college buildings to hospital uses, but finally he took a building known as "the palace," for that purpose. The French troops used the college later. Doctor James Tilton was left at Williamsburgh in charge of the American sick and wounded after the surrender of Lord Cornwallis at Yorktown, when General Washington with his army went north. The French troops remained cantoned at the same place. He writes (*Observations on Military Hospitals*) of their hospital, as follows:

"Being thus in a French garrison I had some opportunity of observing the French practice and management of their sick. In passing the wards of their hospital, their patients appear very neat and clean, above all examples I had ever seen. Each patient was accommodated with everything necessary even to a night cap. Nevertheless, they were not more successful than we were. Even their wounded, with all the boasted dexterity of the French to aid them, were no more fortunate than ours. I was led to attribute their failure principally to two causes. For ease and convenience, they had contrived a common necessary for their whole hospital, the college, a large

building three stories high, by erecting a half hexagon, of common boards, reaching from the roof down to a pit in the earth. From this perpendicular conduit doors opened upon each floor of the hospital; and all manner of filth and excrementitious matters were dropped and thrown down this common sewer into the pit below. This sink of nastiness perfumed the whole house very sensibly and, without doubt, vitiated all the air within the wards. In the next place their practice appeared to me to be very inert. When passing their wards with the prescribing physicians, I observed a great number of their patients in a languid and putrid condition and asked occasionally if the bark would not be proper in such cases? The uniform answer was no, too much inflammation. And when they had attended my round of prescription and saw me frequently prescribing the bark, in febrile cases, and even for the wounded, they lifted up their hands in astonishment. Few or no chemical remedies were employed by them. One of their regimental surgeons declared that he never used opium. Their hospital pharmacopeia consisted chiefly of ptisans, decoctions, and watery drinks, fitted only for inflammatory disorders. All these circumstances considered, satisfied my mind why their ample accommodations gave them no advantage of us in the result of practice. I was the more surprised as Doctors Cost and Borgelli appeared to be men of science, well qualified to make research."

In 1780 the French fleet arrived at Providence, Rhode Island, on their mission of aid to the Americans. Doctor Craik was deputed by General Washington to prepare hospitals at that point for the proper reception of any of the French King's officers and men who might be in need of medical assistance on their arrival in this country. General Washington furnished Doctor Craik with the following letter to the Governor of Rhode Island.

"HEADQUARTERS, MORRISTOWN, May 25, 1780."

"SIR :—Dr. Craik, assistant director general of the hospitals in our army, will have the honour of delivering this letter to your excellency. This gentleman comes to Providence to provide hospitals and such refreshments as may be wanted in the first instance for the sick, which may be on board the fleet of His most Christian Majesty when it arrives. The Doctor will consult with your excellency about the houses which will be necessary and proper upon the occasion, and on the best mode of obtaining the refreshments which he may think it necessary to provide. He will stand very materially in need of your good offices in this interesting business, and in a particular manner will want the assistance of the State, either to advance him money or their credit, for laying in the requisite supplies. This I am persuaded they will most readily give him, from an earnest desire to afford every possible comfort and accommodation to the sick of our good and great ally, who have the strongest claim to our attention and generosity, Your excellency will be pleased to have the account of disbursements incurred on the occasion, kept in a clear and particular manner, which will be punctually paid by Mons, Carne, Commissary at War to His most Christian Majesty; or Mr. Damour.

his consul, in gold or silver, or in bills of exchange on France, on the arrival at Providence. One of these gentlemen will be there in a short time.

"I have the honour to be with highest respect your excellency's most
Obedient servant

GEORGE WASHINGTON."

"To His Excellency
GOVERNOR GREENE."

The citizens of Providence objected most strongly to the college buildings being taken for hospital purposes and finally the Assembly authorized the use of the buildings "on the farm in Bristol lately belonging to Wm. Vassal, Esq.," instead.

Not much contemporary literature concerning the medical affairs of the continental army was written but there remain two communications by distinguished medical men which are particularly worthy of mention. I have several times in the foregoing pages quoted from Doctor James Tilton's *Economical Observations on Military Hospitals*. This pamphlet contained the author's views on the principles that should guide the sanitation of an army and the regulation of its hospital. The work is very practical and full of common sense. He adduces arguments derived from his own personal experience as an army surgeon to support the various contentions which he makes.

The other literary contribution which I consider most noteworthy is Benjamin Rush's pamphlet entitled "Directions for Preserving the Health of Soldiers," which was published by order of the Board of War. It is "Addressed to the Officers of the Army of the United States" and contains many excellent sanitary rules in a brief but clear form, explaining clearly their reasonableness and pointing out their utility. Many of the points he lays stress on are similar to those emphasized by Tilton. No one interested in military hygiene could more profitably devote the short time necessary for their perusal than to a careful reading of these two articles. They are as full of meat as a nut and their rules are just as applicable to-day as they were one hundred years ago.

Calomel After Acids.—Dr. Govane, according to the *Medical and Surgical Bulletin*, made a very interesting report on calomel to one of the Italian societies. He finds that calomel in contact with chlorids, minerals and organic acids in the test tube does not form corrosive sublimate. This is also true of this substance in the dog's stomach as shown by means of gastric fistula. Experiments on sixty children by administration of calomel followed by lemonade made by muriatic, citric or tartaric acid and by strongly salted bouillion, milk and orange juice produced no disagreeable effects whatever.
—*Cleveland Journal of Medicine*.

Send us the names of two or three physicians to whom we may send sample copies; if you are pleased with the *NORTH CAROLINA MEDICAL JOURNAL*, drop them a card in our favor.

Glaucoma :—Amblyopia. (Abstract.)*

By WILLIAM CHEATHAM, M. D., Louisville, Kentucky.

CASE 1. A gentleman operated upon in New York for cataract six years ago consulted me saying that his glasses had given him some trouble. With slight change in the astigmatic part of his glass his vision was $\frac{2}{8}$ + to $\frac{2}{8}$. With distance glasses he could read Jaeger No. 1, the finest newspaper print, at arm's length. Another peculiarity was that his vision was telescopic; he saw objects as if looking through a long tube. On walking into a room, if his eyes were not directed downward, he would walk into low furniture, or run against anything the height of his head, above the center of vision. The ophthalmoscope showed chronic glaucoma, with deep cupping of the optic nerve. There was no pain, no dilated pupil, no blurring of central vision, yet this destructive disease was in progress.

There are three forms of optic nerve cupping, viz: the physiological which is central, and the edges especially on the nasal side may be quite abrupt, which does not involve the whole of the optic nerve. The cupping seen in atrophy involves the whole nerve, but is shallow. The cupping of glaucoma involves the whole of the head of the nerve, and its edges are abrupt. An iridectomy in this form of glaucoma promises but little. We have to depend upon the local use of myotics, the best I think is eserine, which should be used often and in weak solutions as strong solutions if long continued might excite iritis. I gave this gentleman the following:

R Eserine, 1-16 gr.
 Philocarpin muriat, 1 gr.
 Aqua, 3 ss.

Even this weak solution keeps his pupil contracted fourteen to sixteen hours. Glaucoma, sub-acute or chronic, is a treacherous disease. Glaucoma, acute, is usually amenable to early surgical treatment.

Attention is especially called to the progress of the disease in this man who is an exceedingly close observer. An involvement of peripheral vision (although contracted visual field is one of the constant symptoms of glaucoma) with an abnormal acuteness of central vision, (such acuity of central vision is extremely rare even in a normal eye) and the ability to read small print at arm's length with his distance glasses, showing that he has accommodation at fifty-nine years of age with his crystalline lens gone. To do this there must be some advancement of his choroid and retina.

CASE 2. Another gentleman consulted me with V. R. 20-20, V. C. 20-50; no improvement with glasses; both optic nerves cupped; glaucoma sub-acute. He had opacities in both lenses; incipient cataract. I gave him eserine and pilocarpine. His urine was normal but excessive in quantity. He reported to me every two or three weeks, his vision gradually failing, the lenses becoming more and more involved. The drops kept the tension of his eyes about normal. Without my knowledge he consulted an oculist in New

*Read before the Louisville Clinical Society.

York, who told him he had "incipient cataract." I advised the patient when next again to see the same oculist as the glaucoma had been overlooked. On his next visit the doctor repeated his former diagnosis; the patient asked him to "look again," when he discovered the glaucoma.

I continued the use of eserine and pilocarpine until the left cataract was nearly mature, then performed iridectomy in each eye. After a rest of several weeks I removed the cataract from his left eye. A thick membrane in the field of the pupil resulted, which was needled. To-day, with a proper correcting glass, he has vision of $\frac{2}{10}$, or more than normal.

This case is reported to show what vision can be secured in such instances. His visual field is but little involved. He still uses the eserine and pilocarpine especially in his right eye from which the cataract has not been removed.

CASE 3. A gentleman complained of loss of sight, distant vision being reduced to 1-5 of perfect in each eye, not improved by glasses. His history and the appearance of the optic nerves pointed to the overuse of tobacco and alcohol, to which he confessed. Two methods were used to verify the diagnosis. First I had him inhale a few drops of nitrite of amyl, and in a minute tested his vision and found it had increased from 1-5 to 20-40, or half of perfect. This lasted but a short time. Second I gave him hypodermatically nitrate of strychnine gr. 1-30 which in twenty minutes brought his vision to 20-40. This was not permanent, yet it verified my diagnosis.

The prognosis in this case is favorable if his habits can be corrected and if strychnine nitrate be given to the limit; the nitrate should be used as it is a neutral salt and less likely to produce abscess at the site of insertion. I have given him $\frac{3}{120}$ of a grain in gradual increasing doses before getting the physiological effect; usually it is reached with from $\frac{1}{120}$ to $\frac{1}{120}$ of a grain. I speak of $\frac{1}{120}$ gr., as the solution used is grs. iv to aqua $\bar{3}$ i, each drop therefore containing $\frac{1}{120}$ of a grain.

A curious feature about this trouble is that after patients recover they frequently return to their old habits with but infrequent relapses. We know the pathology to be involvement of the bundle of nerve fibres which are distributed to the macula lutea, all the others escaping at first; there is then central scotoma. The name retrobulbar neuritis is, I think, an improper one.

DISCUSSION.

Dr. S. G. Dabney.—Glaucoma and cataract do not frequently coexist. Such cases, however, do occasionally occur. I have one under treatment now, a very stout woman aged fifty-five years, who has a cataract in one eye which is ripe and ready for operation, and an incipient cataract in the other. Last summer she had decided glaucoma in the eye which is now ready for operation. I shall do an iridectomy preliminary to the extraction. An interesting feature is that she is decidedly gouty, and modern pathology leads one to look upon glaucoma as a manifestation of gout. It seems clearly demonstrated that the underlying cause is in the general system.

It is unusual to find the field of vision so concentrically contracted in glaucoma as stated by Doctor Cheatham. As a rule the field of vision is not contracted equally in all directions. It generally begins in the nasal half of the field, and rarely effects the vision as he mentioned. The condition described is usually seen in atrophy of the optic nerve or in retinitis pigmentosa. But for the excellent central vision it would be suggestive of chronic atrophy of the optic nerve, which is often mistaken for glaucoma.

In regard to the last case: It has always been a puzzling pathological question as to why alcohol and tobacco should produce such a curious effect upon the central bundle of fibres of the optic nerve. It is strange that only this bundle of fibres should be affected in the so-called alcohol and tobacco amblyopia.

With further reference to cataract: I will briefly mention a case in which there were two features of interest. First the remarkable hereditary tendency to cataract, second the slowly increasing opacity, beginning in the center of each lens and causing practical blindness long before operation could safely be done. The patient's father, mother and brother had cataract, and his sister had slight opacities in each lens. I did an iridectomy, rubbing the crystalline lens—the so-called Forster operation—to hasten the ripening of the cataract, so as to make him sooner ready for the operation. This did not act satisfactorily as it had no especial effect upon the progress of the cataract. His brother had the same operation performed in Cincinnati, Ohio, with similar result. In each case the maturing of the cataract was exceedingly slow. I operated by extraction upon the gentlemen three weeks ago, and his sight is now nearly perfect. He was practically blind for two or three years, but the operation will give him a vision of more than $\frac{2}{3}$, which is the accepted perfect standard.

Chattanooga Medical College.—The tenth commencement exercises of this school took place on March 21st, and was a very creditable affair. Dean Cobleigh stated that the session just ended marked the close of the first decade and was the most prosperous in the college history, that nearly two hundred students had been enrolled in the college class during the past term, and that, with the completion of the new city hospital the outlook of the institution was particularly promising.

HOMŒOPATHY.

Take a little rum
The less you take the better;
Pour it in the lakes
Of Wener or of Wetter.

Dip a spoonful out,
And mind you don't get groggy;
Pour it in the lake
Of Winipisogee.

Stir the mixture well,
Lest it prove inferior;
Then put a half drop
Into Lake Superior.

Every other day
Take a drop in water;
You'll be better soon—
Or at least you oughter.

—*Bishop Doane.*

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.

W. H. WAKEFIELD, M. D.

Editors and Proprietors.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.

J. HOWELL WAY, M. D., Waynesville, N. C.

J. ALLISON HODGES, M. D., Richmond, Va.

S. WESTRY BATTLE, M. D., Asheville, N. C.

GEO. G. THOMAS, M. D., Wilmington, N. C.

J. P. MONROE, M. D., Davidson, N. C.

R. L. PAYNE, M. D., Norfolk, Va.

H. S. LOTT, M. D., Winston, N. C.

J. W. LONG, M. D., Salisbury, N. C.

H. A. ROYSTER, M. D., Raleigh, N. C.

ALBERT ANDERSON, M. D., Wilson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

A DEPARTMENT OF HEALTH.

The importance that any branch of science attains in the minds of the people depends entirely upon the teaching and efforts of those who are skilled in that branch. While medical men realize the great importance that sanitation and quarantine bear to the public weal, their importance seldom enters the mind of even intelligent men in other professions, for they are giving their thought and energy to the advancement of the work they have espoused and leave matters pertaining to health to the doctors. The manufacturer is absorbed in the effort to make his products as nearly perfect as possible and with the least expense, and would pay little or no attention to the disposal of refuse material did not the student of hygiene keep his eye upon him. The financier, the lawyer, the teacher, the soldier, the farmer, all strive for the advancement of the work in which they are engaged. The same should be true of the doctor. The medical profession will never attain its proper place except through the efforts of its own members. People in other callings in life have their own affairs to look after and leave matters pertaining to health to medical men.

There is nothing more important to the individual or the nation than health. There is nothing more demoralizing to the commercial activity of a city or state than an outbreak of infectious disease. Every one will acknowledge this, and yet it seems impossible to secure from those who have the making of the laws such enactments as will enable the board of health to effectively carry out their plans for the prevention of disease. Hundreds of thousands of dollars are appropriated for the education of the masses, and

very properly so, but in this State the paltry sum of \$2,000 a year is all that is set aside for the preservation of the health and lives of the people. There seems to be an opinion prevalent in the minds of the people that they should be expected to give attention to their own business only, and that in case of an outbreak of pestilential disease, it is the doctors' business (through an unremunerated board of health) to go to work and check the outbreak. They are interested in stamping out the disease only because its presence endangers their individual lives or injures their business.

The public health is of sufficient importance to entitle it to equal recognition with agriculture, the post-office, the army, the navy, or any of the affairs of state. There should be in the Cabinet of the President a secretary of health who should be the head of a great army organized to resist the unseen foe, which has declared perpetual war against us, and which is continually threatening our shores. The affairs of health, especially now since our new and closer relations with the fever-infected West Indies, Hawaii with its leprosy and the Philippines with their plague, are sufficient to occupy the entire time and attention of such an officer. This work should not be left to men who receive no remuneration for their services. The work is in the interest of the country at large, and though the function of the officers of the health department is to save life instead of destroy it, they should receive as liberal compensation as the officers of the army and navy.

Our law makers at Washington are absorbed in the problems of the standard of money, the tariff and imperialism, and have no thought for such every day matters as the public health. Therefore, if they are to be brought to such a realization of the great importance of the matter as to cause the creation of a Department of Health it must be done through the organized effort of the medical profession, individually and collectively. National and State associations must approach Congress with formal resolutions, and individuals must take occasion to discuss the matter with Senators and members of Congress whenever an opportunity presents itself. If this be done it will not be long ere our profession will take its proper place in the estimation of the people and we will have a representative at the elbow of the President whose presence will assure the people that every precaution is being taken to prevent the entrance of foreign pestilence or the spread of epidemics at home.

SHOULD THE CLERGY PAY FOR MEDICAL SERVICES.

We occasionally see this question brought up for discussion either by an individual, who perhaps has had the tender of a fee from some minister better off, or more punctilious than his brothers, or commented upon in the journals in a purely abstract way. From a period so remote, that the memory of man runs not to the contrary, it has been an almost universal custom of the medical profession to bestow its services upon the preacher and his family free of charge. Such a practice is an eloquent testimonial of the high regard in which our profession holds that of the clergy, though the

busy and irregular life of the doctor interferes with his religious exercises, and like William McClure many of them are but rarely seen at kirk. On the other hand the ministerial profession has always been a staunch friend of the physician, and no class of our patients call upon us with more alacrity in cases of sickness, albeit now and then they seem to have an ineradicable weakness for attaching their signatures to various and sundry laudatory certificates of patent and proprietary medicines. This tendency is sometimes so strongly developed that the reverend signer throws in a photograph and a benignant, clerical countenance occasionally adds variety to the dull monotony of an advertisement of a "nervine," "blood purifier" or what not. This idiosyncrasy aside however, the fact remains that the frequent association of these professions in the midst of scenes of human suffering has always been a bond of sympathy between the two. The question of receiving a monetary recompense for services rendered by the doctor to the minister cannot be arbitrarily determined. Some clergymen receive large salaries or are otherwise well-to-do, and there would certainly be no reason why a physician, whose income perhaps is much smaller, should refuse a medical fee from a man both able and willing to pay. In fact, it may be safe to say that the practice of accepting gratuitous service has many and growing exceptions among those members of the clerical profession who are financially able to pay a doctor bill, chiefly because these men do not like the idea of resting under onerous obligations and doubtless also because the spirit of commercialism is getting to be more marked in every sphere of life. Well paid ministers being in the great minority however, we feel confident in saying that the large majority to whom the payment for medical services would be a veritable hardship, will continue to receive the best skill and attention of the medical profession without any thought of a monetary remuneration.

Distilled Water.—According to the wise man of the Medical Age, the way to prolong life is to use lots of distilled water daily, with two or three doses each day of 15 drops of dilute phosphoric acid. We do know that this acid aids digestion more than any other—at least, it does so in a test tube. He also says that we begin gelatinous and end osseous, though we should prefer to say calcareous for evident reasons. In the main, he seems to have thrown out a big chunk of solid truth. He advises against the use of foods containing lime salts, and these are bread and also meats and the cereals generally. As we become older, this makes our diet fruits, distilled water and dilute phosphoric acid, with a slight mixture of the undesirables.

Treatment of Bedsores.—Studies in recent years show that proteids, and especially peptones, in solution stimulate granulation. In other words, it is local feeding of badly nourished areas. We have no special preference for these preparations. Bovinine gives excellent results. In Blockley Hospital, where bedsores were once so numerous, now under this treatment we have scarcely one.

Reports of Cases.

Death Following Injection of Antitoxin.—Mary K., age 4 years, on Nov. 29th, '98, was chilly and fretful and feverish, the next day she was worse and on the 1st of Dec. I was sent for to see the child and on examination found a well developed case of diphtheria but the fever was not very high, breathing was good and pulse not very much accelerated. But the child would not take food without much coaxing. I gave some small doses of calomel and had the throat mopped out with a salution of Pot. Chloridi. Tr. Ferri and Acid Hydrochlori in Glycerine every 2 hours, and enough turpentine was rubbed on the neck at the angle of the jaw to produce redness a few vesicles, and medicated steam inhalations were given every hour. The child was fed on milk and egg-nogs. Next morning I found the child resting comfortably and wanting to take food and part of the membrane was coming off. We all were much encouraged and felt safe, perfectly safe in keeping up the same treatment and did not use the autitoxin which I had with me. The parents did not want a hypodemic used and I thought the child would get along without it. Next morning, Dec. 3rd, I was called to see the child and found it very much worse, breathing VERY FAST and quite purplish around its mouth. At once gave a hypodemic of nitro glycerine $\frac{1}{200}$ gr. and some egg-nog and the steam inhalations were kept up right along. I insisted on the antitoxin now and very reluctantly they consented. I gave 750 unites No. 3 green label. In less than three minutes the respirations began to slow down and in less than 30 minutes the child was dead. What caused death? W. T. MCANALY, High Point, N. C.

A Lesson in Surgery.—As we grow in years and in experience, incidents and observations of the past crowd upon us, impressing us with the meagerness of our knowledge. Such an incident recurs to me, which came in the first years of my work.

The patient, a colored man, came into my office at noon, and held up to me a bleeding left hand, with half the last phalanx of a finger missing. With his right hand he was diligently searching his pockets, and, after diving into several, produced, from amongst tobacco trash, and other things, the severed portion, and asked what I would charge to "sew it on."

The accident had occurred while cutting feed for his horses; the finger slipping too far in the trough of the cutting box, and coming beneath the knife.

Now, I was quite hungry for my dinner, but was far hungrier for some surgery, and also for a fee. That the end would grow back to the finger, being thus completely severed, and in its dirty condition, did not occur to me, and the word amputation had a high and mellow sound that caught me mightily. Therefore, I told him, with a world of wisdom in my voice, that the cut finger must be taken off at the distal joint, and pictured most graphically the beautiful and useful stump that I should make for him; closing

my remarks with the request that he go to his employer and bring me a written order for the fee. This he agreed to do, and disappeared, having dropped the piece of finger again into his pocket.

I made all necessary, and no doubt a great many unnecessary, preparations, and waited for two long hours or more, with the emptiness of my stomach quite prominent. However, the patient did not return, and finally, in disgust and chagrin, I put up my tools, and left my office.

More than a year passed, and while I often thought of the case, I never saw the patient, until he one day again walked into my office. Recognizing him at once, I asked to see his hand, which he held up, in the possession of five good, honest fingers; one of which had a slight encircling scar, near its end. In surprise, I began to question him, and in explanation, he said: "Well doctor, I'll tell you, I didn't have any money, and I could not find the Boss, and so when I got off 'round the corner down here I just took that piece of a finger out and stuck it back on, and tied my handkerchief around it, and it grow'd fast."

H. S. LOTT, M. D.

Salem, N. C., 4-22-99.

Don'ts in the Use of the Stomach Tube.—Dr. A. L. Benedict (*American Medico-Surgical Bulletin*, June 25) concludes an article on this subject in the following manner: "(1) Don't use the stomach-tube simply because you want to be considered scientific and up-to-date. (2) Don't withdraw stomach contents for examination unless you are prepared to examine them. (3) Don't discard external means of physical diagnosis because you have a stomach-tube. (4) Don't expect too much from diaphanes, electric buzzers, buckets, complicated tubes, etc. All of these have their uses, but are available in very rare cases. (5) Don't pass the tube without first examining the mouth and throat, and also the heart and arteries, and at least inquiring as to pregnancy, piles, and other possible complications. (6) Don't pass the tube as a means of treatment unless you know precisely what you wish to accomplish with it. (7) Don't introduce a weight and bulk of water which you would consider injurious if swallowed. As a rule, do not introduce more than a pint at once, and never more than a quart. Don't be deceived by the ball-valve action of a particle of food or any other cause which may allow water to remain in the stomach. Make sure that you withdraw as much as you introduce, except that you may allow a little for leakage through the pylorus, or possibly for absorption. Remember that the more a stomach can hold, the less it ought to. (8) Don't imagine that the gastric douche will cure all the diseases of the stomach; you would laugh at a gynecologist who held such a view about the vaginal douche. (9) Don't imagine that a stomach is doing well until it can digest plain but varied diet without mechanical interference. Don't speak of a patient as cured until he can indulge in all the ordinary food without medical aid and without injury. (10) *Don't let the patient learn to pass the tube himself.* This rule holds for his benefit as well as yours. (11) Don't fail to use the tube or to have it used when the indications outweigh the contraindications."—*Medical Record*.

News and Items.

The Medical Society of North Carolina meets in Asheville at the Battery Park Hotel May 30th.

Board of Medical Examiners will meet on May 25th in Swannanoa Hotel, Asheville, and applicants for license are requested to be on hand promptly.

Dr. Djemil-pasha recently made a laparotomy on the sister of the Sultan for stenosis of the pylorus and the success of the operation is proving quite a force in breaking down the barriers against the treatment of Mussulman women by physicians.

The parties implicated in the army beef scandal may each say with Hamlet's uncle: "My offense is rank. It smells to Heaven."

Hypodermic Needle and Tetanus.—A dirty hypodermic needle has frequently produced tetanus. Care should be taken that hypodermic injections be made with a sterile instrument and the place of injection cleansed carefully.

An Application has been made, it is said, by a North Dakota packing company for permission from the New York Board of Health to sell horse meat in that city. The claim is made and supported by statistics that equine flesh is wholesome, and it is also claimed by the company that more care is exercised in the slaughtering, etc., than is usual in the preparation of beef.

Centaur Company Wins.—In the United States Circuit Court, St. Louis, for the Eastern District of Missouri recently Judge Adams, in the case of the Centaur Company of New York, manufacturers of Castoria, against S. W. Eslinger, of St. Louis, enjoined Eslinger from selling Castoria in any packages, wrappers, labels or bottles which could possibly be mistaken for then Centaur Company's Castoria. The genuine Castoria, which is put up by the Centaur Company, has on every package the signature of Charles H. Fletcher in script, and on the package put up by Eslinger, which was enjoined by Judge Adams, instead of the signature of Charles H. Fletcher, appear the words Pitcher's Baby Castoria, written in script and placed in such a position as to mislead the purchaser, who is looking for the signature, which appears on the genuine. The injunction in this case was an eminently proper one.

To Plug the Posterior Nares.—Twist up from three to six loops of stout thread twelve inches or more in length, leaving one thread hanging, the rest being waxed so as to form a rigid mass, which can be inserted into the nasal cavity as far as the posterior wall of the pharynx. The extremity is seized by means of a forceps through the mouth, and brought outside of the lips. The thread is then separated and a cotton tampon attached to fill the posterior nasal orifice. This is placed in position by drawing upon the threads which project from the nostril with the aid of a finger in the mouth. Leave hanging in the pharynx an end of the thread with which to extract the tampon.—*Stephen, Medical Record.*

Modern Treatment of Acute Coryza.—Dr. Rice, in the *May Post-Graduate*, outlines his routine treatment for colds as follows: First, he uses a solution of cocaine, not stronger than 5 per cent., and five minutes later insufflates a combination of six parts of compound stearate of zinc with boric acid and one part each of the compound stearate powder with alum and with cocaine. The patient is instructed to use this powder three times a day, blowing it in, while holding the breath, at the end of a deep inspiration. He is also warned not to blow his nose repeatedly, as serum will be formed in the nostrils as fast as expelled. Antiseptic washing is indicated in the later stage only. Laxatives, phenacetine, salol, etc., may be employed by way of general treatment.—*Pub. Health Journal*.

The Gullibility of the Public.—According to the *Boston Medical and Surgical Journal* for January 19th, the Practitioner, in an interesting account of Sir William Jenner, in which his professional honesty and even bluntness is commented upon, gives the following excellent anecdote of another distinguished physician who had certain qualities which Jenner lacked. The story is taken from the St. Bartholomew's Hospital Journal: "Dining one evening in the company of some medical men, among whom was Dr. Martin, then physician to Bart's, Sir William Gull declared that some amount of quackery was essential to success in medicine. 'It is an example of the old saying,' he averred, 'Populus vult decipi.' The host asked for a terse English equivalent. 'Oh that's easy enough,' said Dr. Martin quickly: 'The public like to be gulled!'"

A Pessary Retained Forty Years.—A correspondent of the *Boston Medical and Surgical Journal* recites the following remarkable history which was reported at the January, 1899, meeting of this local society: The reporter removed a pessary from the vagina of a woman who was over seventy years old. It was a smooth, hollow sphere of wood, but, like the earth, "a little flattened at the poles." Its lateral circumference was $6\frac{1}{4}$ inches; its vertical, $7\frac{1}{2}$ inches; and its weight 482 grains. It was of one piece of wood, with a cover one inch across.

It was removed on account of the offensive discharge. It was so firmly imbedded the doctor had much difficulty in taking it out. After a few days the discharge ceased, and at the time the doctor exhibited the instrument he said "she was as well as any woman."

This pessary was first applied by a distinguished surgeon, who died in 1863, but who removed from this vicinity in 1858, and did not practise here after this latter date; consequently it had been certainly worn forty years, and perhaps longer. Once only during this long period had it been removed, but was at once replaced. Some years after its application she married, and lived happily with her husband for nearly a quarter of a century. He died without posterity. The cause of his death was not stated. This incident shows how absolutely necessary is the *early* removal of an irritating pessary. Had this one remained in its habitat another forty years a serious, perhaps fatal, sepsis might have developed.

This correspondent very properly signed himself "Veritas."

Book Reviews.

Materia Medica for Nurses.—By EMILY A. E. STONEY, Graduate of the Training School for Nurses, Lawrence, Mass. ; late Superintendent of the Training School for Nurses, Carney Hospital, South Boston, Mass. Handsome octavo volume of 300 pages. Cloth. Price, \$1.50 net. Published by W. B. Saunders, Philadelphia.

The present book differs from other similar works in several features, all of which are intended to render it more practical and generally useful. The subject matter is arranged in alphabetical order, which not only renders it more convenient for study as a text-book, but also adds materially to its value as a work of reference for ready consultation.

The general plan of the contents follows the lines laid down in training schools for nurses, but the book contains much useful matter not usually included in works of this character. The consideration of the drugs includes their names, both English and Latin, their sources and composition, their various preparations, physiologic actions, directions for handling and administering, and the symptoms and treatment of poisoning.

The Appendix contains much practical matter, such as Poison-emergencies, Ready Dose-list, Weights and Measures, etc., as well as a Glossary, defining all the terms used in *Materia Medica*, and describing all the latest drugs and remedies, which have been generally neglected by other books of the kind. The work will be found extremely practical and absolutely up to date.

A Manual of Nursing in Pelvic Surgery. BY LEWIS McMURTRY, A. M., M. D., Professor of Gynecology in Hospital College of Medicine, Louisville, Ky. Published by John P. Morton & Company, Louisville, Ky.

This little volume of ninety pages contains much that is interesting and instructive to the physician as well as the nurse. The necessity for cleanliness and strict attention to details in preparing for an operation is impressed upon the reader, and most explicit instructions are given. The chapters devoted to the care of these cases after surgical interference, as well as during the various complications which often arise, are particularly clear and practical and will prove equally as valuable to the surgeon as to the nurse. The publishers have done their part well and the book is attractively bound and printed.

The Office Treatment of Hæmorrhoids, Fistula, Etc., Without Operation, together with Remarks on the Relation of Diseases of the Rectum to other diseases in both sexes, but especially in women, and the abuses of the operation of colostomy. By Charles B. Kelsey, A. M., M. D., Late Professor of Surgery at the New York Post-graduate Medical School and Hospital, etc. New York: E. R. Pelton. 12 Mo., cloth, 68 Pages, price 75 cents, net. For sale by all booksellers or sent by mail on receipt of price.

This little volume is made up of three lectures by the author. In the first two he attempts to counteract the common idea that the treatment of these very common affections must necessarily be surgical and shows the relationship so often existing between rectal diseases and diseased conditions in neighboring organs. The last lecture is devoted to the discussion of the "Abuse of the Operation of Colostomy." Anything upon this particular branch of practice, from the pen of Dr. Kelsey will not lack of appreciative readers. The book is attractively bound and printed, and we can only regret that the writer did not increase the practical value of his work by giving his methods of treatment in more detail.

The Literary Digest of April 15th is an unusually interesting number, containing among many articles of merit an illustrated account of Nikola Tesla's recent experience in building inductive-coils for the development of great electrical pressure, and of the curious behavior of rarified air in high altitudes on the discharge into it of an electric current of a few million volts. He found under these conditions nitrogen uniting with oxygen and expresses "fear of a possibility" of the earth's atmosphere being ignited.

Johns Hopkins Hospital Reports.—Report on Pathology. A Review of the Pathology of Superficial Burns, with a Contribution to our Knowledge of the Pathological Changes in the Organs in Cases of Rapidly Fatal Burns. By Charles Russell Bardeen, M. D. Johns Hopkins Pres., Baltimore, 1898.

This report is based on the study of the postmortem findings in the cases of five children in whom extensive burns caused death in a few hours. The work bears evidence of the customary care and thoroughness that characterizes all the work done at this institution.

The Literary Digest, of May 6th, is a particularly interesting number of that always interesting publication. "Southern Opinion on Lynching" is expressed in quotations from a dozen Southern sources.

"Captain Coghlan's After Dinner Speech" receives courteous treatment, and "Race Feeling Against Anglo-Saxonism," as shown by utterances by German-Americans, Irish-Americans" and others, makes a chapter worth the reading, closing as it does by a statement from the *N. Y. Age* that "The white races are the most consummate and self-complacent hypocrites in all the history of the races."

Scribners for May contains a paper by Maj. Gen. Wood (Military Governor of Santiago) on "Santiago Since the Surrender" which tells as only Gen. Wood can of the great work done in transforming that death trap into one of the healthy cities of the world. The narrative is characteristic of the man and gives a good insight into the character of this strong American who is making history. **The Rough Riders in the Trenches**, by Gov. Roosevelt, Illustrated with many photographs, begun in Jan. to run through six numbers—requires no comment from us. Joel Chandler Harris contributes a Southern story—"How Aunt Minerva Ann Went into Business," which illustrates the inexplicable, kindly, family feeling that existed at the close of the war between the Southern planter and the recently freed slave. Much more this number of *Scribner* contains that is worthy of mention, but the above will suffice to indicate its value.

Physicians strive for hospital, dispensary and other public positions which bring them prominently before the profession as recognized authorities. They can gain a far wider and speedier recognition from the profession by *really good* work in a reputable medical journal.—*The Medical Council, Phila.*

Pelvic Congestion.—

- R Magnes. sulphatis, 3 viiss.
 Ferri sulphatis, 3 ij.
 Manganesii sulphatis, 3 ij.
 Acid sulphur. dil, m xlv.
 Aquæ destil, 3 iv.

M. S. A tablespoonful before breakfast in a wineglass of water.—*Riforma Medica.*

Review of Medical and Surgical Progress.

The Working Tools of the Craft.

Excerpt from Editorial in *Dominion Medica*. Monthly, Toronto, Canada, March, 1899.

Coincident with the onward progress of the medical art has been the advance in our knowledge of the cause of disease. As the practice of medicine and surgery has gradually but surely emerged from the darkness of charlatanism and empiricism and approached more nearly to the dignity of a science, the pressing demand for better facilities and better "working tools" has been met alike by the skilful instrument maker and the modern expert pharmaceutical chemist. The surgeon of to-day has at his command a full armamentarium of ingenious instruments of precision, originated by the physiological chemist as a result of the close study of Nature's laws and elaborated and perfected by expert pharmaceutical skill. Contrast for a moment the "working tools" of the physician of a hundred years ago with those of the practitioner of to-day; the bolus and nauseous decoction as against the dainty tablet and the palatable elixir. Up to this point the modern surgeon possesses no advantage over his medical confrère as far as his "working tools" are concerned; but here the parallel ceases. The surgeon when he needs a new scalpel for an important operation, examines the stock of a reputable dealer and personally selects an instrument of the best quality obtainable. He sees it, handles it, and assures himself that it is well made and properly tempered. If perchance the knife is not as represented he soon discovers it, and promptly discards it for one which is more satisfactory and reliable. The surgeon not only *personally selects*, but *personally employs* his instruments, and therefore cannot be deceived in them. But how about the equally important "working tools" of the physician, *i. e.*, the remedies which he orders for his patients? After a series of careful clinical experiments with various remedies of a certain character he comes to the deliberate conclusion that one particular preparation gives him the best therapeutic results and that it will hereafter become one of his trusted "working tools." Take for instance Pepto-Mangan "Gude," the value of which almost every modern practitioner is now familiar with. The physician has learned from experience just what this particular remedy will accomplish; he knows its advantages, limitations, indications and dosage, and prescribes it in properly selected cases, with full confidence in its action and effects. Just here, however, the physician *loses control of his "working tool"* unless he is positively certain that this prescription will be filled exactly as specified. It is, of course, manifestly impossible for the busy physician to personally follow up every prescription in order to assure himself that some inferior and more or less worthless substitute is not dispensed in place of the article prescribed, and he must therefore adopt some other means to prevent this reprehensible practice. There are three ways in which the physician can protect himself and his patient against this unwarranted, inexcusable, and dishonest inter-

ference: (1) Let him be certain that his prescriptions are filled only by pharmacists known to him to be above such disreputable catchpenny practices. (2) Specify plainly and unmistakably the particular preparation desired. (3) When possible order an original unbroken package. We feel strongly about this very common and nefarious practice of substitution, which is injurious alike to the welfare of the patient and the reputation of the physician, to say nothing about the injustice to the reputable manufacturers, who have spent brains, time and money in putting valuable and eminently eligible "working tools" into the hands of the profession.

The Renaissance of Minor Gynæcology.—The time seems to be at hand in which a physician who ministers effectively in the field of gynæcology will receive some credit from the laity without necessarily being known as a laparotomist. For a term of years major operations, often, it is to be feared, undertaken with but slight reason, have swamped all other services in this field, in the estimation of patients and their friends. The change that appears to be coming will be in the interest of sound and conservative practice, and is to be welcomed.—*N. Y. Med. Jour.*

A Menstruating Man.—Dr. Rushton Parker (*British Medical Journal*, April 1st) records the case of a man, twenty-four years of age, who married a woman, but was unable to effect sexual intercourse with her. She noticed that he had a monthly sanguineous discharge lasting about three days and staining the linen. After eight months they consulted Dr. Parker. He describes the man as follows:

"I found nothing unusual in his general appearance, except a shy, cowed look; the penis, urinary meatus, and scrotum seemed normal, but the testes felt decidedly small and soft; he stated that he had never either abused himself or had any sexual feeling whatever. Being satisfied that he was at least not a complete man, and doubtless cowed by his wife's dissatisfaction, he readily consented to a separation and allowed her half his income.—*N. Y. Med. Jour.*

Evil Effects of Hand-Shaking.—One might suppose from the calm and placid exterior of most great persons that public life is a private snap. But it isn't. Take, for instance, officials who are called upon to hold public receptions. It looks easy, of course, to pump-handle a few thousand persons at the rate of twelve a minute, but just try it once. When you have you will feel inclined to wood-sawing as a light diversion, and as a relaxation take to carrying up coal from the cellar. Reduced to the simplest expression, hand-shaking is the hardest manual labor on record. The wife of a prominent American was speaking of this feature of public life a short time ago, and in illustration held out her hands. "You see my left hand," said she; "well, it is no different from any other hand. It is not too large, nor too broad, and, if I may say it myself not ill-formed. Now look at my right hand. You notice the difference.

Do you see how much larger it is—how it is broad and pudgy? Well all that came from hand-shaking. Nowadays I have to have my gloves made to order, the right hand two sizes larger than the left.” The same woman said too, that her right arm frequently became numb and powerless after receptions where she was called upon to shake hands with a thousand or more persons.—*Public Health Journal*.

Physician to the Pope.—A writer in the *Pall Mall Gazette* says: “I do not wish the position of doctor to the Pope for my worst enemy when the august patient is not well. His house—doctors to the Pope do not live in the Vatican—is no longer his own, but public property, for there is a continual coming and going of prelates, messengers from all kinds of personages, and journalists. However, the worst hours are those of the night. The doctor, to be sure of hearing any call from the Vatican, has the telephone at the head of his bed, and when sinister rumors circulate cardinals and diplomats seem to consider it their duty or privilege to ring him up at all hours of the night.

“And that is not all. Besides the inconvenience, there is also considerable expense, as many telegrams requiring answers arrive for him, a great portion of which he cannot ignore, because of the station of the senders. No one would certainly every guess what salary the papal doctor draws; it is only \$600 a year!

“At the Vatican everything is maintained unchanged as it was several centuries ago, and the stipend of the doctor remained fixed at fifty scudi (\$50) a month, with the difference that what was formerly equivalent to a good, round sum is now of very small value. The only other advantage which he has is a carriage to convey him to and from the Vatican.

“The present doctor, Professor Guiseppe Lapponi, has held his position since 1888. At that date Leo XIII, having been left with only a surgeon, and the need of a doctor being much felt, Professor Lapponi, who was practicing at Osimo, on the Adriatic side of the peninsula, came every week to Rome to visit him. Shortly after the surgeon died, and the professor became and has remained the only physician of His Holiness. He has gradually so gained his confidence and friendship as to be to him what Dr. Schweninger was to Prince Bismarck.

“Dr. Lapponi is the only person who succeeds in overcoming the natural obstinacy of Leo XIII to take certain precautions to which he shows great repugnance. In fact, the regime established for the daily life of the Pontiff has such fixed rules that his life may be compared to a chronometer. There are, however, habits which the persistence of the doctor has not succeeded in eradicating. Only to-day Professor Lapponi told me that His Holiness still persisted in mounting a chair in his library to get down the books himself, and when remonstrated with over the danger even to a younger person he replies: ‘I know the way; I know the way.’ Then he will not give up mental labor. During the last few days that he has been in bed he has composed verses, worked with his private secretary, Mgr. Angell, and received Cardinal Rampolla every morning to discuss State affairs, and all this just a little more than one month before his ninetieth birthday.—*Md. Med. Jour.*

The Therapy of Iron.—Dr. A. L. Benedict, in the *Therapeutic Gazette*, for January, 1899, presents an interesting paper on this subject. The observations of Honigsmann and Hofmann are quoted to show that iron administered in inorganic form is absorbed at least from the duodenum, and under some circumstances from the stomach and jejunum. In six human cases in which iron had not been administered medicinally, Hofmann made careful examinations of the alimentary canal, liver, spleen, and kidneys, using ammonium sulphide as a better reagent than potassium ferrocyanide, etc., whether for naked-eye demonstration or for microchemic preparations. He found that an abundance of iron could always be found in the spleen, as would be expected from the blood-elaborating function of this organ, and especially the breaking up of senile red cells in its pulp. It is scarcely necessary to remind the readers of this paper that hemoglobin will not react like inorganic compounds of iron and that incineration is necessary to reduce it artificially to the inorganic state. The liver always contained iron, but in varying quantity. Only occasionally, and then scantily, was iron found in the intestinal walls or the kidneys. In four other cases, iron, corresponding to about six centigrammes of the element daily, had been administered for some time and up to within a day or so of death. In this series iron was demonstrated in the duodenum in considerable quantities, in the large intestine in considerably less amount; otherwise the results were the same as in the preceding cases. Microscopically, about two-thirds of the villi of the duodenum contained iron, as shown under low powers, or macroscopically by a diffuse greenish tint; under high powers iron was shown to be present by the presence of small kernels in the epithelium and larger masses within the villi, the latter being borne mostly by round cells—lymphocytes—toward the submucosa. At first sight this would seem at variance with the classical analysis of lymph of the thoracic duct, as given by Gamgee and others. But it is evident that the analysts chose cases not under iron medication, and therefore subject to only minute traces of iron. It is supposable also that the iron may be diverted from lymph-channels into blood-vessels before reaching the thoracic duct.

It will have been noted that Hofmann's experiments are contradictory to two time-honored theories regarding the physiology of iron; that it is absorbed from the stomach as a chloride or chloralbuminate, and that iron salts, like other soluble drugs, pass immediately in the portal circulation to the liver. On the other hand, they confirm the theory that, in the spleen, senile red cells are broken down, and that the hemoglobin minus the iron is eliminated as biliary pigment, while most of the iron is reused. It is perfectly possible, however, that iron is absorbed directly from the acid stomach or even from the bowel by blood-vessels. Naturally, this method of absorption would not allow such delay of iron in the wall of the alimentary canal that it could be demonstrated by color reactions after autopsy.

As to the choice of preparations of iron the writer has never been able to observe much difference except such as might be attributed to some com-

plicating circumstance. In subacid dyspepsia the liquor tincture of the chloride is particularly beneficial, because of the acid present in excess. In chronic Bright's disease the especial virtue of this preparation and Basham's mixture has never been conspicuous, and the writer is of the opinion that the iron should be given without reference to a possible effect upon the kidney, and some such diuretic as potassium citrate or pure water or fruit juice be administered to get the exact effect needed so far as elimination is concerned. This would produce better results than trying to kill two birds with one stone. Neither does it seem wise to administer astringent salts of iron for a local effect upon the alimentary canal. Such are certainly contraindicated in gastric ulcer, while for the intestine there are far better and less irritating astringents and the iron might better be given in as mild form as possible. The so-called pyrophosphate, the vegetable salts, reduced or powdered iron, Bland's mass and the newer preparations supposed to represent the virtues of hemoglobin have not given discriminating results in the writer's hands. All are quite unirritating; otherwise the choice depends mainly on whether a liquid or dry preparation is desired. As to the albuminates and peptonates of iron, it must be apparent that any mineral salt of iron given on a full stomach will form some such compound, while there is no preparation more palatable and more elegant than the albuminate formed by adding a ferric salt to egg-water or milk.

The key-note of successful iron therapy is to recognize that this drug is a food, and that if it is not absorbed and assimilated from an ordinary ration the trouble lies essentially with the body, and, according to Hofmann, with the duodenum. We have plenty of precedent for the administration of iron under these circumstances in the administration of acids, bile and fats when the system does not produce or properly assimilate these. It seems to the author irrational to administer iron medicinally without carrying on routine blood examinations to determine whether the particular preparation is doing good in the individual case.

Sterility and Gonorrhea.—Benzler, in the *Berliner Klinische Wochenschrift*, No. 51, investigated the influence of double orchitis in wedlock, not only those cases caused by gonorrhea, but also those of traumatic origin, and by his investigations has discovered that in more than seventy-seven per cent. the faculty of reproduction was retained. He instituted a general investigation of 3,000 patients then confined in the military hospital at Hanover suffering from gonorrhea. Only 474 of this large number were found to have been married. Sterility was only considered when those married had passed three years together without children being born to them. After the expiration of this time cases of absolute sterility caused by single orchitis increased from 10.5 to 23.4 per cent., and those of double orchitis to 41.7 per cent. The foregoing facts substantiate the author's assertion, viz., that of every hundred men suffering from double orchitis, seventy-seven of them retain the power of reproduction, provided that the women they marry be capable of bearing children, and that they have not been rendered ill and sterile by the man.—*Med. Age.*

The Report of the War Investigation Committee.—The Commission arrived at the following conclusion in regard to the Medical Department during the war with Spain :

(1) That at the outbreak of the war the Medical Department was in men and materials, altogether unprepared to meet the necessities of the army called out.

(2) That as a result of the action through a generation of contracted and contracting methods of administration, it was impossible for the Department to operate largely, freely, and without undue regard to cost.

(3) That in the absence of a special corps of inspectors, and the apparent infrequency of inspections by chief surgeons, and of official reports of the state of things in camps and hospitals, there was not such investigation of the sanitary conditions of the army as is the first duty imposed upon the Department by the regulations.

(4) That the nursing force during the months of May, June and July was neither ample nor efficient, reasons for which may be found in the lack of a proper volunteer hospital corps, due to the failure of Congress to authorize its establishment, and to the non-recognition, in the beginning, of the value of women nurses and the extent to which their services could be secured.

(5) That the demand made upon the resources of the Department in the care of sick and wounded was very much greater than had been anticipated, and consequently, in like proportion, these demands were imperfectly met.

(6) That powerless as the Department was to have supplies transferred from point to point, except through the intermediation of the Quartermaster's Department, it was seriously crippled in its efforts to fulfil the regulation duty of "furnishing all medical and hospital supplies."

(7) That the shortcomings in administration and operation may justly be attributed, in large measure, to the hurry and confusion incident to the assembling of an army of untrained officers and men, ten times larger than before, for which no preparations in advance had been or could be made because of existing rules and regulations.

(8) That notwithstanding all the manifest errors, of omission rather than of commission, a vast deal of good work was done by medical officers, high and low, regular and volunteer, and there were usually few deaths among the wounded and the sick.

The Commission makes definite recommendations for the future conduct of the Medical Department, urging the necessity of a larger force of commissioned medical officers ; authority to establish in time of war a proper volunteer hospital corps ; the establishment of a reserve corps of selected trained women nurses ; extra supplies of all sorts to be held constantly on hand ; improvement in transportation ; less red tape ; the authorization of surgeons to purchase such articles of diet as may be necessary for the proper treatment of soldiers too sick to use the army ration.

On the whole, we must regard the report as a fair statement of the conditions as derived from the evidence at the disposal of the Committee.

Kumiss.—A part of the education of every trained nurse is the preparation of delicacies for the sick, which includes not only the preparation, but the quality and character of food to meet different conditions of the stomach and the wants of the system. Every trained nurse is taught how to make kumiss, which has become recently such an important article of nutrition to the invalid. As the kumiss, or fermented milk, contains a little alcohol, with fat, caseine, lactic acid and carbonic acid gas, it is usually very agreeable to the stomach, both nourishing and refreshing, and containing so little alcohol that there is but little, if any, subsequent reaction from its effects. As made in the hospital and the country home a quart bottle is filled with milk, to which is added two tablespoonfuls of white sugar dissolved with hot water, and a quarter of a two-cent cake of compressed yeast. The cork is securely fastened, and the bottle placed for six hours in a temperature of from 70 to 80°, and then transferred to the ice box for about twelve hours, when it is ready for use. Of course, it can be kept for several days at a moderate temperature before being placed in the ice box.

Revision of the Pharmacopœia.

To all whom it may concern :

In accordance with instructions given by resolutions passed at the National Convention for Revision of the Pharmacopœia of the United States of America, held in Washington, A. D., 1890, I herewith give notice that a General Convention for the revision of the Pharmacopœia of the United States of America will be held in the City of Washington, D. C., beginning on the first Wednesday in May, 1900. It is requested that the several bodies represented in the Convention of 1880 and 1890, and also such other incorporated State Medical and Pharmaceutical Associations, and incorporated Colleges of Medicine and Pharmacy, as shall have been in continuous operation for at least five years immediately preceding this notice, shall each elect delegates, not exceeding three in number; and that the Surgeon General of the Army, the Surgeon General of the Navy, and the Surgeon General of the Marine Hospital Service shall appoint, each, not exceeding three medical officers to attend the aforesaid Convention.

It is desired that the several Medical and Pharmaceutical bodies, and the Medical Departments of the Army, Navy and Marine Hospital Service shall transmit to me the names and residences of their respective delegates, so soon as said delegates shall have been appointed, so that a list of the delegates to the Convention may be published in accordance with the Resolutions passed at the 1890 Convention for the revision of the Pharmacopœia, in the newspapers and medical journals in the month of March, 1900.

Finally, it is further requested that the several Medical Pharmaceutical bodies concerned, as well as the Medical Departments of the Army, Navy and Marine Hospital Service, shall submit the present Pharmacopœia to a careful revision, and that their delegates shall transmit the result of their labors to Dr. Frederick A. Castle, 51 West 58th Street, New York City, Secretary of the Committee of Revision and Publication of the U. S. Pharmacopœia, at least three months before May 2nd, 1900, the date fixed for the meeting of the Convention.

H. C. WOOD,

President of the National Convention for revising the U. S. Pharmacopœia,
held in Washington, D. C., A. D., 1890. University of Pennsylvania,
May 1st, 1899. Philadelphia, Pa.

Eye, Ear, Nose and Throat Department.

A Report of a Few Interesting Cases.

Read Before the Charlotte Medical Society, Tuesday, April 11, '99

By W. H. WAKEFIELD, M. D., Charlotte, N. C.

Mr. President, and Members of the Charlotte Medical Society :

I desire to present to you to-night a few short reports of cases that have been of interest to me :

In February '95, I was consulted by Miss A., a healthy looking girl of 17 who gave the following history :

On awakening one morning in May '94, she found herself hoarse—the hoarseness increased and in a few days she was unable to speak except in a whisper. This condition has continued up to the present.

A view of the laryngeal structures was easily obtained and showed a thickening and congestion of the tissue covering the arytenoid cartilages with inflammation and swelling of the mucous membrane between the cartilages. The cords were normal in appearance, but approximation was rendered impossible by the swollen tissue between the arytenoids. She was placed on treatment consisting of strychnia internally and the larynx was sprayed three times daily with a solution of antipyrine, listerine and water. I also applied directly to the inflamed, thickened tissue, by means of a cotton carrier, a sol. of silver nitrate every second day, beginning with 5 grs. to the oz of water and increasing 1 gr. at each application until a 10 gr. sol. was being used.

Improvement in vocalization began in a week, and in a month, the patient declared “she could talk as well as she ever could.” There has been no relapse.

Sprouting Wheat Grain Under the Upper Eye Lid for 6 Weeks.—In Aug. '96 a man of 30 called for eye treatment giving the following history. In June he was binding wheat in the field. The cradler ahead struck the heel of his cradle on a stone and at the same instant he was hit in the right eye by what he supposed was a fragment of the stone. Examination was made by his fellow laborers but nothing was found in his eye and he resumed work, his eye causing but little annoyance, aside from exhibiting slight redness. In a few days, however, this redness became more intense, and the upper eye lid began to swell. Various eye lotions were used but the eye grew worse and he consulted me about six weeks after the injury. At this time, the mucus membrane of lids and ball was intensely congested, and the upper lid bulged quite perceptibly at the upper edge of the tarsal cartilage.

My first act was to evert this lid, when to my surprise a foreign body rolled down his cheek. This was found to be a grain of wheat covered by its inner coating of chaff; the wheat had sprouted and the sprout was fully $\frac{3}{8}$ inch long.

The thick raw edges of the ulcer formed by the presence of the foreign body were snipped off to expedite healing, boric acid lotion applied ever-two hours and calomel salve applied to the everted lid twice daily. All inflammatory symptoms rapidly disappeared.

Wheat Beard One Inch and a Half Long Under Upper Eye Lid.—In Aug., '96, a man consulted me, giving the following history: A week before while "cutting bands" at a wheat threshing he was hit in the eye by a wheat-beard. The pain was severe and his physician found a short piece of a beard stuck in the cornea. This he removed, telling the patient to see me next day if his eye was not better. In a week he comes with his eye intensely injected, and the upper lid much swollen. The point at which the beard stuck in the cornea is visible, but the abrasure was healed. I insisted upon looking under the upper eye lid, he objecting on account of the pain.

The lid was everted with difficulty, then by means of retractors the lid was further elevated and a wheat beard $1\frac{1}{2}$ inches long was found snugly tucked away.

It was removed and none too soon for the lids and eye were rapidly growing into a condition dangerous to sight.

A Child With Husk of Corn Stalk in Eye.—In May, '96, a child of twelve months was sent to me by the late Dr. Victor McBrayer, of Shelby. At the outer canthus of right eye a polypoid growth was found extending nearly half way over the sclerotic toward the corneal margin.

Under chloroform, two polyps were found, one springing from the upper and the other from the lower cul-de-sack. On removing these, there was found a piece of the outershell or husk of a corn stalk, $\frac{1}{8}$ inch wide and $\frac{5}{8}$ inch long. This was standing vertical at the outer canthus and from the points at which its ends lacerated the mucus-membrane exuberant granulations had sprung up and extending in the direction of the least resistance had covered about one-fourth of the eye.

Fowlers' Solution for Bolls.—Wallick,² of Williamsfield, Ill., says the best possible remedy for boils is Fowler's solution given in five or ten drop doses after each meal. It checks the development of a new crop when the first has completely suppurated. The author says he uses it as his sheet-anchor in acute and chronic forms, and it has not failed of success in one out of twenty trials.

—² Practical Medicine, February, 1899.

Thymol, U. S. P., is a crystalline phenol soluble in 1200 parts of water but very soluble in alcohol, ether and chloroform. It is a good intestinal antiseptic in pill form, in 2 to 3 grain doses. A watery solution makes a good mouth wash.

Certain patent medicine manufacturers have combined with a capital of \$25,000,000, under a New Jersey charter.

Alcohol is said to counteract the escharotic action of carbolic acid.

Reading Notices.

ONE OF THE OLDEST ANTISEPTICS, BUT ONE OF THE BEST.—There are thousands of physicians, yes, tens of thousands, we doubt not, who can say with "Doctor," in "An Interview," "Why, I absolutely depend upon Listerine in most of my throat work, and find it of inestimable value in my typhoid cases (as many a poor soldier boy can testify), and there are a number of purposes I put it to in the sick room, where nothing can take its place, notably, as a douche, mouth-wash, and in sponging my fever patients. Furthermore, I always deem it my duty to see that my patients get exactly what I order for them, therefore, I always order an original package, thus avoiding all substitutes. That is just where my views upon professional attitude and sound business policy consolidate into one joint effort for the patient's benefit, and incidentally, my own."

Like every other good thing, Listerine has been counterfeited, as many a physician has found to his regret, none of the "just as good and cheaper" preparations approaching it for trustworthy antiseptic service.—*Mass. Medical Journal*.

WHEN PAIN IS DOMINANT.—"A number of years ago, in a conversation with my old friend, Professor Stucky, of Louisville, he told me that he used far less morphine now than formerly and that he was able to combat the factor of pain as successfully in the majority of cases without it as he did with it. He urged me to give antikamnia to my patients who had neuralgia, la grippe, rheumatism, locomotor ataxia and dysmenorrhœa, instead of using morphine. I acted on his suggestion and have been able to relieve this class of patients as effectively and without producing the evils that result from the exhibition of opium or its alkaloids. Antikamnia possesses anodyne, antipyretic and analgesic virtues and has been thoroughly tried by able therapeutists. Prof. Shoemaker, of Philadelphia, has found it very valuable in rheumatism, migraine or neuralgic headache and many other nervous affections."

SANMETTO AND SUBSTITUTES WITH THE "SAME FORMULÆ."—I have used Sanmetto in cases of catarrh of the bladder and enlargement of the prostate gland with great success. In fact I never saw anything so near a specific. Henceforth I will not be without Sanmetto. Saw-palmetto and Sanmetto substitutes with the "same formulæ" do not act nearly so well. I therefore with pleasure recommend Sanmetto to the medical profession.

J. L. SAMMONS, M. D.

Calis, W. Va.

MALARIAL FEVERS.—Prof. G. Scognamiglio (Die Heilkunde) presents reports of his own experience, as well as that of Drs. Loti and Colotti, with quinalgen in the treatment of the various forms of malaria, in which quinine was not tolerated, or was otherwise objectionable. Up to the present time they had employed the remedy in 40 cases, comprising intermittent fever, 11 cases; tertian, 7; quartan, 7; masked forms, 10; pernicious malarial fever, 3, and atypical, 2 cases. The results were remarkably favorable in the first class, from 7 to 22 grains being administered three times daily. Equally satisfactory effects were obtained in tertian and quartan fevers, doses of 15 to 22 grains being given 8 to 10 hours before the occurrence of the attack, until 30 to 60 grains had been taken. In all these cases, as well as the masked forms, the attacks were either aborted

or much reduced in intensity, and a permanent cure rapidly obtained. In pernicious types of fever it was usually found desirable to give an initial dose of 30 grains, followed by smaller doses. In the majority of these cases a cure was brought about after 10 to 12 days' treatment.

UTERINE DERANGEMENTS.—I have used Aletris Cordial in my practice for over a year, and to say that I am pleased with it does not nearly express the degree of my satisfaction. Aletris Cordial fills a long-felt want with me. Symptoms attending uterine derangements have always been perplexing to physicians, but with this remedy the trouble vanishes as dew before the rising sun.—L. M. McLENDON, M. D., Georgiana, Ala.

External Urethrotomy.—Dr. J. R. Hayden (*Boston M. & S. Journal*) emphasizes the following points in this operation:

1. *Division of the Stricture.*—All of the stricture tissues should be completely divided in the median line, not only on the floor, but also on the roof of the canal. In order to ascertain whether the division of the tissues has been complete, the index finger, with its palmar surface directed upward, should be passed into the perineal wound and down to healthy urethra, well in front of the stricture, and then backwards on the roof of the canal into the bladder; this will readily detect any bands or masses which have not been thoroughly divided. At the same time the dilation of the posterior urethra with the finger prevents in a great measure post-operative tenesmus. The perineal operation being completed, a full-sized sound should be passed from the meatus into the bladder to ascertain that the whole length of the urethra is clear; if obstructions exist, they may be removed by meatotomy, internal urethrotomy, or post-operative dilation.

2. *Bladder Drainage.*—This the author regarded as a most important measure after this operation. He advised the use of a large perineal tube, which keeps the bladder well drained, dilates the posterior urethra, and, to a certain extent, the divided structure, and is an ever ready route for bladder irrigations, which are so essential in the treatment of urethrocystitis. In from two to four days after the operation the tube is taken out, washed, and replaced; it is removed permanently on the fifth to seventh day, when the patient is allowed to be up and about. In the majority of the cases all the urine is passed by the urethra in about one week after the removal of the tube, but in some the urethral wound remains patulous for several weeks.

3. *Post-operative Dilation.*—When the tube is first taken out for cleaning, a medium sized sound is passed into the bladder and held there for about a minute; this is repeated every second or third day until the perineal wound has cicatrized, and the urethra takes a No. 28 to 30 (French) sound with ease, according to the case, when the intervals are made longer.

4. *Treatment of the Perineal Wound.*—The perineal wound should be personally inspected every day to see that it is healing solidly from the bottom by firm, healthy granulations, and is not allowed to bridge over in places, or to fill up with pale, flabby tissue. This can be prevented by running the finger firmly through the bottom of the wound from end to end. Exuberant granulations are removed by the nitrate of silver stick or curved scissors and the wound dressed lightly with gauze.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIII.

CHARLOTTE, MAY 20, 1899.

No. 10

Original Communications.

Dysmenorrhœa And Its Treatment.

BY MILTON P. CREEL, M. D.

Surgeon Q. C. Railway, Surgeon L. & N. Railway, Secretary Muhlenburg County Board of Health, Referee for Muhlenburg Co. for Ky. State Board of Health, President Muhlenburg Co. Medical Society, Member U. S. Board Pension Examiners, Member American Medical Association, Member Kentucky State Medical Society, &c., Central City, Ky.

THE term dysmenorrhœa signifies painful menstruation, and carries with it no well defined agreement of associated pathological conditions.

In the best sense of the term dysmenorrhœa is not a disease but a symptom of some diseased condition, which is often very obscure, yet, when dysmenorrhœa can be clearly demonstrated to depend upon no physical defect, as obstruction, it is clearly a neurosis.

Some writers divide dysmenorrhœa into a great many varieties, based on pathological conceptions of the writers, and therefore theoretical in a large degree, but they are controverted by many other authors, and these varieties have therefore come to be regarded as not trustworthy by practical physicians.

Again, some writers will have it that dysmenorrhœa is at all times an obstructive affection. But it has been proved time and again that females suffer regularly with dysmenorrhœa who are in no wise the subject of any disease of the organs of generation. Some writers have offered the following forms of dysmenorrhœa as those which express the true cause. These are termed the "congestive," "spasmodic," "inflammatory," "neuralgia," and the "membraneous" forms of dysmenorrhœa. There is no question that there is an *obstructive a neuralgic*, and a membraneous form of the affection. Yet while we cannot agree that the other forms will obtain in a logical examination of the facts, there are doubtless certain clinical features present in many cases to give rise to a belief in the possible existence of other varieties. That we indulge, however, in a large degree of speculation relative to the nature of dysmenorrhœa the following quotation from Foster will prove: (1). "That women who so far as we can discover, are in perfect health in other respects,

both constitutionally and locally, suffer from dysmenorrhœa, although it must be admitted the great majority of sufferers show evidence of a depraved constitutional state. (2). That women of every sort of systemic ill health escape this ailment. (3). That the affection is found associated with every abnormality of the sexual apparatus. (4). That except positive occlusion of the uterine canal, there is no condition of the parts concerned that invariably gives rise to it. It will be seen from all this that the relations between dysmenorrhœa and its causes are very diverse and but imperfectly understood; that no single theory of its causation will apply in all cases, and that no one of the nosological systems covers the ground satisfactorily from a clinical point of view."

For convenience I shall adopt those varieties which I mentioned above as the most logical divisions of the subject. These are the obstructive, the neuralgic, and the membranous, and I shall give an outline of each, before giving my conception of the proper treatment.

Obstructive Dysmenorrhœa is that expression of the affection dependent upon obstruction to the escape of the menstrual fluid from the genital organs. Obstruction of the uterus, or vagina either will give rise to obstructive dysmenorrhœa. Most generally, if not almost exclusively, the obstructive form is dependent upon uterine obstruction. These are in a great many cases found to be uterine flexions, the interposition of a polypus, the presence of an exfoliated membrane, or to stenosis dependent as it is upon causes which have been existent for a considerable time.

I shall not take time here to give the diagnosis of this form, so well recognized; and I will consider the treatment when I have spoken of the other varieties.

The Neuralgic Dysmenorrhœa, is a form, which is so clearly distinct from the obstructive form in so many of its characteristics, as to justify me in denominating it a distinct expression of this disorder.

This type of dysmenorrhœa is characterized by pain of greater or less severity at each menstrual period. In those patients who suffer from it there is pain in the uterus from the time the menses appear until they disappear, and even the pain continues until the menses have passed. Those who are attacked with this form of dysmenorrhœa are generally those persons who have been exposed to some disease influence which is sufficient to establish a neuralgia. I have found that many of these patients live in malarious districts, others are those who work hard, and expose themselves to cold, and other influences which tend to lower the vital stamina. The neuralgic character being dominant in all these cases, by the fact that pain is the constant feature, and there is no obstruction in any way to the escape of the menstrual flow. Again, these patients suffer with neuralgia in other parts of the body at other times than the catamenial period. Examination often reveals the fact that these patients are suffering from anæmia, or lowered vital stamina dependent upon some disease influence at work in the body.

Membranous Dysmenorrhœa, is a form of the affective, peculiar and distinctive. It is characterized by the passage of a membrane, a perfect cast of the interior of the uterus, at every menstrual epoch and it is characterized by the presence of a great deal of pain.

The causes of this form of dysmenorrhœa are entirely unknown. Often, however, it is associated with, or follows in the train of, long continued uterine disease.

Now, what can be said of the treatment of this affection? The disorder is very common and the practitioner should have well defined ideas as to the proper management of the affection. The treatment naturally divides itself into two general indications. *First*, the employment of such methods as will remove the cause; and, *secondly*, bringing to bear such treatment as will mitigate the pain which is the dominant factor in all cases. In the treatment of the obstructive form of dysmenorrhœa, the correction of any flexion or displacement will be imperative and also will we have often to remove a polypus when we find it to be the causative factor. Operation for stenosis will be called for when we are sure that it exists. In the management of the neuralgic form, we shall find ourselves under necessity of ascertaining the cause of the neuralgia, and adjusting our treatment upon it. Close study of each case will generally reward us with a solution of the problem. If anæmia or malaria is found to be the cause, our duty is manifest, and likewise as to other indications.

The treatment of Membranous Dysmenorrhœa is as unsatisfactory as its etiology. Many plans of treatment have been carefully tried, but no measure has been more successful than the administration of tonics and constructives for a considerable period, and the application of iodoform to the interior of the uterus. This, together with the administration of certain drugs which act directly as an anodyne on the uterus, will often bring happy results.

What agents are best for the relief of the patients during the painful period? Often the pain is very severe, and we can only obtain relief by the giving of morphine hypodermically. This remedy, valuable as is the service it renders us in extreme conditions, is never required if we have had our patient under observation for any continued time. If liquor sedans be given for a time, its tonic action on the uterus and its apendages will be so manifest that the dysmenorrhœa, will not appear, if the other treatment looking to the removal of the cause be given. In many cases of dysmenorrhœa, (neuralgic and obstructive) no other agent than liquor sedans is necessary. Conjoined with suitable constitutional treatment this agent will relieve the conditions so materially that the next menstrual epoch will be past without pain. I order the patient to take liquor sedans for a period of six weeks or two months, along with other agents which I think are necessary. Even in those cases where we see the patient for the first time, there is no better treatment than to give liquor sedans in teaspoonful doses every hour until the pain is stopped. After that, I give it in doses of half teaspoonful every three hours a considerable period as a uterine regulator and tonic. Let me

now give in a brief way the clinical histories of several cases of dysmenorrhœa treated along the lines here laid down.

Mrs. Y. N. M., aged 27, suffered with dysmenorrhœa to an extent that at many times threatened her life—so severe were the exacerbations of pain. She was a clerk in a store and stood up a great deal. Her appetite was poor and she gave evidence of being a sufferer from anæmia. She was also very nervous, and the subject of violent attacks of headache, and hysteria. This patient was given remedies looking to the correction of the anæmia present. She also took liquor sedans in doses of a teaspoonful four times daily an hour before meals and the last thing on going to bed.

Her headaches were promptly relieved by bromide of potassim. She began to improve in strength and general appearance, and passed the first menstrual period after beginning the treatment (three weeks from the beginning of treatment) without pain.

This patient, who has now gone several months without any pain while menstruating, and looks well, and feels no necessity for any drug whatever.

Mrs. L. K., age 27, suffered with membranous dysmenorrhœa for a long period. She was put on liquor sedans in doses of a teaspoonful four times daily and continued it several months. Local treatment was employed for a month. This woman for the first time became pregnant and after giving birth to a healthy child had no further evidence of disease.

Miss S. O., age 20, had painful menstruation. She had no constitutional cause that I could lay hold of. I gave liquor sedans in teaspoonful doses four times daily and ordered her to take systemic exercise and to look well to it that she did not become constipated.

She made a complete recovery in two months.

The Chloroform-Ether Controversy.

By AUGUST SCHACHNER, M. D., PH. G.

Demonstrator of Anatomy in the Louisville Medical College, etc., Louisville, Kentucky.

Stenographically Reported for this Journal.

[[N a paper on this subject read before the Louisville Clinical Society the author said in part, that he disclaimed any originality, the object being to gather accessible material and present it as a basis of discussion.

It is a well established axiom in surgery that it is impossible for a surgeon to become a devotee of a special anesthetic. He may have a preference, and where no special contraindications exist yield to it, but a wise eclecticism in this respect must prevail.

The conditions which control the selection of the anesthetic are both external and internal.

External conditions, as in the time of war, would give chloroform the preference by reason of the rapidity of its action, the advantages in portability, and its safety in point of inflammability.

Internal conditions which favor the preference in behalf of chloroform are various: Tetanus and violent puerperal convulsions demand the more rapid of the two agents, and therefore furnish strong reasons for the selection of chloroform.

Very old subjects have too much rigidity about the chest to meet the demands of ether, and because of these senile changes, and not the years, chloroform is the more desirable agent of the two; but freshly prepared A. C. E. mixture would be preferable to chloroform. (Hewett.)

In extreme obesity ether often occasions such undue excitement as to make its use undesirable; but even in these Wood recommends a trial of ether, and if not well borne, the substitution for chloroform until quiet anesthesia is secured, then a return to ether.

Where renal disease exists, with or without atheroma, chloroform is safer. If renal disease is complicated with a heart lesion, the decision may be difficult. When secondary cardiac degeneration, which sooner or later follows in the course of Bright's disease, makes its appearance, ether is safer than chloroform; or, as Wood states, begin with ether, and when the subject is well under way and the stimulating effect apparent, change to chloroform.

In valvular heart trouble ether should be preferred. A loud murmur points to the character of the lesion, but equally to the condition of the heart muscle, so apart from the organic defect it argues more in favor of a strong than a weak heart.

In diseases of the respiratory apparatus, chloroform should have the choice over ether. In organic brain disease, such as tumor or wide-spread atheroma, any anesthetic is accompanied with risk. Organic brain disease is responsible for more deaths from anesthesia than organic heart disease. While not entirely represented, the indications and contraindications are in the main set forth in the foregoing lines.

Treatment of accidents during anesthesia should be divided into *preventive* and *restorative*. *Preventive measures* may be arranged under three heads, viz:

- (1). Correct adjustment between the selected anesthetic and the condition involved;
- (2). Proper preparation before, and proper administration of, the anesthetic;
- (3). Prompt attention to any flagging of respiration or circulation.

The first measure has already been considered in a practical way.

As regards the second: Aside from well-known directions as to the stomach and the presence of foreign bodies in the mouth, the administration of one-half ounce to one ounce of whiskey, not immediately, but at least half an hour before anesthesia, is an old and excellent practice; hypodermic injections of strychnine, digitalin, atropine, or cocaine, singly or combined, to suit the demands of the particular case; when the circulation is aimed at, strychnine and digitalin; when the respiration is at fault, cocaine, strychnine, or atropine, alone or in combination. Tincture of digitalis is prefera-

ble to digitalin, but those who have had experience with the hypodermic use of tincture of digitalis, aromatic spirits of ammonia, etc., will be slow to forget the painful consequences which too frequently follow their employment. For this reason the active principles rather than any of the galenical preparations of the drugs are recommended. Cocaine has fairly well established its supremacy as a respiratory stimulant, with strychnine close in its footsteps.

About three years ago Rosenberg advanced the view that irregularity of the heart was due to an interference with the respiratory organs. This interference, however, was not of a mechanical but of a reflex character; an interference with the pneumogastric and respiratory nerve centers in the medulla, caused by reflex irritation of the terminal branches of the trigeminal nerve distributed in the nasal mucous membrane.

Rosenberg's directions for employing his method are as follows: "The patient is directed to blow his nose in order to free it from mucus, then two centigrammes of a ten-per-cent. solution of cocaine is sprayed into each nostril. After a pause of two minutes, one centigramme of the solution is applied again to each side, and then the anesthesia may begin. Every half hour the application of cocaine is to be resumed. Before removing the patient the nose should receive a final spraying. At each application about one grain of the salt is used. It is important to maintain full anesthesia, as dangerous fluctuations in respiration and pulse always coincide with the necessity of crowding the anesthetic."

According to Rosenberg, the advantages of cocainization of the nasal mucous membrane preceding and during anesthesia are :

- (1.) As the patient's perception of the odor of the anesthetic is much diminished, the feeling of suffocation is entirely absent.
- (2.) The stage of excitement is either short or entirely absent.
- (3.) Vomiting during narcosis is rarer than usual.
- (4.) Sickness following anesthesia does not occur.

This has been tested by Gerster in one hundred unselected cases, Gerster, however, did not employ a ten-per-cent. solution of cocaine, but used one of half that strength, which justifies the belief that he considered Rosenberg as employing unnecessarily strong solutions. In four out of the one hundred cases some irregularity occurred which was correctly or incorrectly charged to the cocaine. In the discussion which followed, Gerster contended that two of these ought to be excluded since the symptoms were more due to the loss of blood. The third case could reasonably be charged to the cocaine, and the fourth he believed to be due to a spasm of the glottis.

So many accidents have already been attributed to cocaine that it is exceedingly problematic whether the method of Rosenberg is a step forward, a standstill, or even a step backward, in the solution of this controversy ; we believe the majority will consider it a backward step so far as the mortality is concerned, or at any rate will be so distrustful as to hesitate in its trial, not to speak of its adoption. Again, if the anesthetic is not crowded too

much at the start, anesthesia of the nasal and laryngeal mucous membranes is obtained; thus irritation, cough, fright, etc., are avoided, and the abolition of these reflexes accomplished.

The first series of Rosenberg's experiments showed that cocaine had the power of checking the action of chloroform on the brain, and in the second series it was shown that animals cocainized could stand double the amount of chloroform and be kept anesthetized for a much longer time than the control animals. Lastly, Rosenberg regards cocaine as an antidote to chloroform.

In the *Post Graduate* (July, 1893) Doctor William H. Porter presents an interesting paper on the indications to be drawn from the urine as to the safety of anesthetics, in which there is a great deal of theory mixed with material that can profitably be agitated by those who administer anesthetics and practice surgery. His paper goes far towards explaining why some subjects do badly under anesthetics, and under surgical operations when we expect them to do favorably. His fourth conclusion is: "That by a careful study of the density of the urine and its causes we are in possession of exact information by which we can determine the precise nutritive condition of the system, and be forewarned as to the possible outcome of the anesthesia. It also enables us to judge which anesthetic is best adapted to the case in question."

Any flagging in circulation or respiration during anesthesia should be met with energetic hypodermic medication. If the circulation is involved, strychnine and digitalin; if the respiration, strychnine, cocaine, or atropine, singly or combined.

Restorative treatment: In speaking of accidents during anesthesia, Doctor Wood expresses himself in the following language: "Death is so near and so terrible, and moments so important, that no surgeon would be willing or justified in waiting for the effect of any one remedy; and when a man is dosed with alcohol, nitrate of amyl, hypodermic injections of ether, digitalis, atropine, and other powerful agents; faradized, slapped, douched, stood on his head, subjected to chest movements for artificial respiration, and various other measures too numerous to mention—who can tell, if by chance he recover, why he has done so? Or who can point out, if by chance he die, what is the remedy whose omission or commission has led to the fatal result?"

The problem is a complex one, not to be worked out amidst the excitement and responsibilities of the amphitheatre. Only in the physiological laboratory can its various elements be separated and studied each by itself, without regard to the individual life which is at stake.

When the crisis makes its appearance, nothing is more useless or harmful than wasting precious seconds and valuable efforts in resorting to medication in general and hypodermic medication in particular. This much in the controversy is agreed upon. Even if respiration fail first, the circulation may do so simultaneously, or at best soon thereafter; under the most favorable circumstances there can be but a very narrow margin between

failure of respiration and circulation. With practically no circulation, the uselessness of hypodermic medication is at once apparent, and when we consider the few moments left us in which to act, the harmfulness is wasting these few moments is more than apparent.

I do not wish to be misunderstood: I am emphatically opposed to wasting any chances through hypodermic medication. I am emphatically in favor of hypodermic medication before the crisis, and when the patient emerges from the critical condition, but not during the crisis, when the circulation is entirely or practically suspended. When the crisis occurs, the proper remedies are not medicines but mechanical measures. The foremost of these is artificial respiration, slowly, carefully and deliberately performed. This I place at the head, with hardly another measure second, and while it is being performed an assistant should elevate and push forward the inferior maxilla, grasp the tongue with a suitable instrument and drag it well forward, at the same time cleansing the mouth of any mucus that may be present. So far we have engaged the attention of two assistants in carrying out the two best accessible measures. If a third be present, let him step upon the table and lock the knees of the patient in his arms, and alternately raise and lower the body, but not raise the body and keep it in that position. Should a fourth assistant be present, let him bare the patient's chest and practice flagellations alternately with hot and cold towels. Four persons may this harmoniously combine their efforts without interfering with each other. When signs of returning life make their appearance, hypodermic injections should be practiced, but without the discontinuance of the measures just named, which should be continued until the patient is thoroughly restored.

Referring to experiments upon lower animals Doctor Wood remarks: "I several times noted that the heart was usually more affected by alternately elevating and depressing the feet of the animal than by keeping it in a steadily elevated or horizontal position. When the circulation has practically ceased, under the depressing influence of an anesthetic, inverting the body must cause the blood, which has naturally collected in the excessively relaxed vessels of the abdomen, to flow into the right side of the heart and distend it, and this distension—this increase of pressure—appears at times to have a sufficient momentary influence to stimulate the failing organ. The theory which has been advocated by some therapists that inversion of the body is of value in the accidents of anesthesia, because it causes the vital centers of the brain to be supplied with blood, is probably incorrect. The respiration in anesthesia fails, not through want of blood in the respiratory centre, but because the blood contains a poison which paralyzes these centers."

When the patient emerges from the crisis and hypodermic injections are resorted to, no better agent than strychnine in large doses—one-tenth or one-twentieth of a grain—can be found. This is a powerful support to both circulation and respiration.

DISCUSSION.

Dr. P. Guntermann :

Death from anesthesia generally occurs from cessation of respiration instead of cardiac failure. In the management of accidents during anesthesia,—chloroform poisoning,—I do not agree with Doctor Schachner as to the use of hypodermic medication, that is to delay it until mechanical means have restored the patient. I think his position is wrong. The anesthetist should have his drugs ready, and as soon as there is evidence of failure either of the heart or respiration it takes but a second or two to make an hypodermic injection of the drug which may be indicated, and he practically loses no time in the use of proper mechanical means for restoration of the patient. If the hypodermic injection does not act at once, it cannot do so at all because circulation is suspended or is at a standstill, but if the injection is given before the adoption of mechanical means, or as soon as mechanical means can be applied, or at the same time, as soon as mechanical means have succeeded in bringing about a restoration, in starting new heart's action, so soon will absorption of this hypodermic injection take place, and it will not take half as long to restore the patient as it would if the hypodermic injection had not been used. A great deal of time will be gained by having the hypodermic injection under the skin by the time mechanical means are instituted.

Dr. Carl Weidner :

My own experience in giving chloroform has not been very extensive in the last year or two. I have used cocaine and think it has been of benefit, in connection with chloroform anesthesia. I have never used, except in one case, the thorough application of ten-per-cent. solution of cocaine by means of the spray as recommended by Rosenberg ; but I have applied it thoroughly in strong solution with a mop made of absorbent cotton wrapped on a probe at intervals about ten minutes before the administration of chloroform, and it has been of decided benefit, the patient taking the anesthetic quietly and easily, breathing in better and keeping a better pulse. I speak of chloroform entirely, but the same thing will apply to ether to some extent. As to whether cocaine has a direct antidotal effect, I am unable to say.

I did not hear the essayist say anything about a drug which has been highly recommended in cases of accident from the administration of chloroform, viz : morphine. I wish he had said something about the use of this agent before the administration of chloroform ; not in small doses, for instance the ordinary $\frac{1}{8}$ or $\frac{1}{6}$ of a grain, but $\frac{1}{4}$ to $\frac{1}{2}$ grain half an hour before the anesthetic, with view of obtunding the nervous system,—and above all in reference to the administration of ether, of obtunding the sensibility of the mucous membrane of the respiratory tract, thereby enabling the patient to breathe freely and steadily from the beginning of the anesthesia.

I think it is agreed by all authorities that the damage to the lung and to the kidneys from both chloroform and ether is increased according to the quantity used. Doctor Schachner has outlined the best

methods of getting rid of the poison which should be our first aim in case of accident.

Dr. F. W. Samuel :

The essayist has given us an excellent resume of the methods of overcoming the immediate deleterious effects of general anesthetics, viz: interference with the respiratory and cardiac apparatus, but he says nothing about the remote effects.

I have been familiar with the method advocated by Rosenberg for a long time, but have never employed it. I believe considerable danger attends spraying into the nose a ten-per-cent. solution of cocaine, and instead of Rosenberg's method becoming general I think it will soon be obsolete. I would rather depend upon slower and more careful administration of the general anesthetic to overcome the irritability of the nasal mucous membranes than resort to spraying with cocaine. The main thing to be considered in preventing accidents during general anesthesia is to have an expert anesthetist, one who is skilled and who is able to recognize the dangers as they approach. The methods of meeting accidents when they occur as detailed by the essayist have been before the profession for several years, and the controversy is by no means settled yet. As to exactly how the anesthetic acts in causing these accidents we are still in the dark. The three best measures of resuscitation are (1) artificial respiration, (2) elevation of the body, and (3) rhythmic traction of the tongue. I believe it is recognized that rhythmic traction on the tongue stimulates respiratory effort. My idea in elevating the body is not so much to get the blood to the right side of the heart, as to induce it to flow into the medulla and stimulate the respiratory and heart centers there, just as we do in the new born infant. Hypodermic injections during the time animation is practically suspended are useless. More good can be accomplished by mechanical means to stimulate the respiratory efforts. I believe faradism might be of benefit.

Dr. Wm. Bailey :

I doubt if any man is skilled in the administration of both chloroform and ether, they are given so differently that a man who is accustomed to administering ether and only under protest occasionally gives chloroform, he is apt to give chloroform as he gives ether, and *vice versa*, which we know would be decidedly injudicious. There is great danger of overwhelming the patient with too much chloroform, it must be given with a certain percentage of atmospheric air, which is not true to the same extent with ether. As to the administration of chloroform in organic troubles of the heart: My judgment is that it is much more important to know the condition of the heart muscle and its own ganglia than it is to know the condition of the valves. Even if a murmur is present, if there is a sound heart muscle, the anesthetic is perfectly safe. As to selection of the anesthetic, in kidney affections chloroform being given by preference is largely because in the administration so much more ether has been given than would have been necessary with chloroform, hence so much greater tax

imposed upon the kidney for elimination, and the more frequent interference in its function as follows secondarily. I think this is the correct explanation of the greater danger of ether *versus* chloroform in cases of kidney involvement. As to the use of cocaine, I think it is only a question of comfort to the patient during the administration of the general anesthetic by local anesthesia of the nasal mucous membrane, taking off the reflexes, so as to get rid of the disagreeable suffocating sensation that goes particularly with the administration of ether. With the judicious or proper use of chloroform there are practically none of these disagreeable phenomena; if it is introduced slowly narcosis is produced so gradually that there is little discomfort and cocaine is not required. I do not believe that 10 per cent. solutions of cocaine ought to be used frequently in the nose. If you will take one hundred or one thousand cases and inject each one of them with a strong solution of cocaine, you will probably have from the cocaine, if you administer no other anesthetic, as many cases of "irregularity" as mentioned by the essayist, which means I take it complications or dangers,—you will have as many from the cocaine as you would have from either ether or chloroform. I am quite sure of this. Where there is need for local anesthesia in cases of the character being discussed, it can be accomplished with much milder solutions than ten-per-cent., you can obtund the sensibilities, take off the reflexes, and get rid of the discomfort, and I believe this is more needed during the administration of ether than with chloroform. I approve of the method mentioned by Doctor Weidner, that we should administer morphine previous to the administration of the general anesthetic. In connection with it, however, for both stimulation to the circulation and respiration, it is equally important to combine atropine with the morphine. It has been my practice to give rather more atropine than ordinarily advised. Where $\frac{1}{4}$ grain of morphine is used I combine with it $\frac{1}{150}$ grain of atropine hypodermatically. I do not agree with the Hyderabad Commission that the danger in chloroform is from the respiration alone. With an experience running over forty years during the early part of which I had occasion to administer chloroform a great many times,—perhaps in one thousand cases,—I think I have demonstrated satisfactorily that the danger lies not alone with respiration. Recently I have avoided giving anesthetics wherever it was possible to do so, because I think they are under all circumstances more or less dangerous. Even when artificial respiration is practiced I believe it is a good plan to administer nitrite of amyl, because we may get the effect of this agent before we could get an impression from any drug injected hypodermatically owing to the weakness of the circulation. Even with a limited respiration we may get some good effect from nitrite of amyl, and if in this way we can open the capillaries and stimulate the heart, the condition is improved. Hypodermic injections of nitroglycerine were not mentioned in the paper. That along with nitrite of amyl is indicated in efforts to resuscitate a patient who is overcome by anesthesia. Another point to which I would call attention is, if a case is of sufficient gravity to require the admin-

istration of a general anesthetic, it requires profound anesthesia before a knife is touched to the patient. I believe many of the cases where death has occurred during administration of anesthetics, were cases where the patients were only partially anesthetized when the operation was commenced, and the reflex action upon the heart from the first touch of the knife was the most important factor in the cause of death. If any case is grave enough to require a general anesthetic, no operation should be performed until the patient is under full surgical anesthesia, until he is sufficiently narcotized to take off the reflexes that might act upon the heart from the operation. With proper precautions,—examination as to the condition of the heart muscle, the brain and kidneys, and particularly the condition of the general system at the time of the administration, I believe we can eliminate many of the difficulties to which attention has been called. We all understand the necessity of the horizontal position, the importance of removing all clothing, etc., which might restrict the circulation, and with these precautions we may feel reasonably safe in the administration of a general anesthetic. With cocaine, however, we never know what it is going to do. Most of us have probably had called to our attention the dangers attending the administration of even small quantities of cocaine, and nobody can foretell what is going to be the effect of a ten-per-cent solution of this agent. I would hesitate very much about spraying the nasal mucous membrane with a ten-per-cent solution of cocaine to obviate the little discomfort which follows the administration of a general anesthetic, and even if I wanted to administer ether, to overcome this discomfort I would rather carry the patient under it gradually or administer chloroform first until the reflexes were controlled then use ether. I am sure we are disposed to push our anesthetics too rapidly. Anybody taking the responsibility of administering anesthetics ought to be absolutely his own master, as to when, how much, etc he should give. He should be directed by the surgeon that he is not to pay attention to anything except the condition of the patient and the administration of the anesthetic. We know how frequently the surgeon calls out to the anesthetist to push the chloroform if the patient flinches under the knife; this should not be so, the surgeon should wait until the anesthetist informs him that the patient is profoundly influenced and ready for the operation, otherwise harm and perhaps death may result.

Dr. W. C. Dugan :

This is a subject in which we are all interested. First I desire to speak of a point made by Doctor Weidner and later emphasized by Doctor Bailey, viz: hypodermic injections of morphine before administration of a general anesthetic. Some anesthetists object to this, as they say it does away with the pupillary reflexes and destroys one of their most reliable signs of approaching danger. I have witnessed most happy effects from the administration of morphine combined with atropine before giving general anesthesia. The mistake we made is that we administer morphine and atropine too late; we should give them at least half an hour before the anesthetic, the patient is then quieted, there is less fear, he goes under the

anesthetic easier, and the stage of excitement is shorter than it would otherwise be. Like Doctor Bailey, I believe we ought to select a man to give the anesthetic upon whom we can implicitly rely, then leave the administration entirely to him. I always do this, and am not only willing to trust to the anesthetist to select the anesthetic but also to have full charge of its administration. I am glad Doctor Bailey made the point in regard to organic heart disease. Where a patient has a murmur, no matter what its character, just so the heart is regular showing no sign of muscular degeneration, I have no fear as to the safety of the anesthetic. I have oftentimes made the remark that a heart murmur was a rather favorable indication. The essayist made a good point about the anesthetist being on the lookout for danger. Many times have I had the anesthetist call for his hypodermic syringe and give the patient an injection of nitroglycerine or some other preparation that was gotten ready beforehand. I always insist upon strychnine, nitroglycerine or something of that kind being gotten in readiness before anesthesia is begun, so that they may be used whenever there is the least indication of irregularity on part of either the circulation or respiration. I have noted the good effects of it time and again, both upon the circulation and respiration. I agree with the essayist in regard to mechanical restoratives. We should not give hypodermic medication after the time of danger has arrived. If we find respiration has ceased, we should not attempt to give hypodermic injections, for we are apt to give so much that when reaction comes on and absorption takes place we will have the toxic effect of drugs administered under such circumstances. We should rely upon artificial respiration, which should be carried out thoroughly, and reserve hypodermic medication until we have signs of reaction, after respiration and circulation have been partially restored.

Dr. P. F. Barbour :

I have had considerable experience in the administration of both chloroform and ether, and like Doctor Bailey, I fear the giving of either agent as there is always a certain element of danger to the patient. Cocaine sprayed into the noses of a thousand patients would give rise to disagreeable symptoms in a percentage of them. We have no right to expose our patients to the dangers of cocaine in addition to the dangers of a general anesthetic. Doctor Dugan has alluded to the principal objection to giving morphine and atropine before an operation—its effect upon the pupillary reflexes : That is a point upon which all of us are agreed ; the pupillary reflex is one of the best indications we have as to the amount of chloroform or ether the patient has received. Unless there are some especial indications for the use of morphine and atropine, the anesthetist will be very much handicapped by not being able to watch this reflex. In many cases in rectal surgery where the patient has to be more profoundly anesthetized than for any other operation, unless we have something of this kind to indicate the amount of the anesthetic the patient is getting, the anesthetist is put at great disadvantage in telling how profound the anesthesia is and how far he may push it.

In many operations, however, the use of morphine might be of decided benefit. As to treatment of conditions as they arise, Doctor Schachner is entirely right that after the patient has reached the crisis it is too late to give hypodermic injections. The anesthetist ought to give hypodermics if called for long before the patient gets into such a condition. Dr. Bailey's suggestion that nitrite of amyl be used so that in the respiratory efforts the vapor may be gotten into the lungs seem to be an extremely good one. Of all agents that can be used to increase the action of the heart and stimulate the respiratory centers, atropine seems to be the best, and the essayist did not allude to this sufficiently. Hare has reported recently some observations he had made on the action of atropine in a number of cases, especially where accidents had occurred under chloroform and ether. He carried out a series of experiments upon dogs showing that when the respiration and heart were about to fail, atropine by its stimulative action upon these centers brought the animals out quicker than any other drug used. A case is cited in recent medical literature where a patient profoundly under the influence of chloroform suddenly ceased breathing, and the circulation also failed; the surgeon who was tying a ligature in the abdominal cavity at the time grasped the abdominal aorta, and as soon as pressure was made upon this vessel, the pulse again became perceptible at the wrist, the patient immediately began to breathe and soon recovered completely. This suggested to Doctor Hare that atropine would be an excellent remedy under such circumstances. This is in accord with the physiological action of atropine as we understand it. Another measure that I regard as useful in cases of this kind is the application of direct heat over the heart. When the heart has stopped beating I believe there is no application we can make that will produce resuscitation so rapidly as heat, for instance a wet pack at a temperature of 110 or 115 degrees will do much toward restoring the heart's action. Personally I have had few accidents in giving chloroform or ether, but I want to have the pupillary reflexes as a guide to see whether I am giving too much of the anesthetic.

Dr. S. G. Dabney :

It is a little surprising that after having used chloroform for fifty years we are still looking for something to make it safer. I was taught by a professor of therapeutics many years ago to give a hypodermic of morphine and atropine at least half an hour before administering a general anesthetic. Personally I would hesitate to use a ten-per-cent. solution of cocaine in the nose as a spray, and desire to endorse the statement made that in one hundred cases where cocaine in this strength is used there will be as many accidents as would occur from the use of chloroform or ether. Many people have an idiosyncrasy against cocaine the same as we often find in the use of other drugs, so that its use in such strength as a spray is dangerous. So far from obtunding the sense of smell cocaine makes it more acute, because by contracting turgescient nasal tissues, it permits freer access of the odoriferous particles to the olfactory region.

Dr. Wm. Cheatham :

Doctor Barbour expressed my sentiments with reference to preceding the administration of chloroform by atropine and morphine. I have heard all experts raise objections to this plan. In speaking of strong solutions of cocaine the gentlemen have evidently overlooked one point, viz: strong solutions of cocaine are less dangerous than weak solutions if you are to continue the administration of this agent for any length of time. The danger of absorption of cocaine by the nasal tissue is less with a strong than a weak solution. If you use a strong solution in the beginning you shrink the blood vessels immediately, and the absorption will be less than if a weak solution is employed. One good effect of using cocaine in the nose during general anesthesia is that you get the benefit of nasal respiration. Few patients under general anesthesia in the prone position will be able to breathe through the nose without the use of cocaine, and you get all the bad effects of mouth breathing. The mouth becomes dry, filled with tenacious mucus, etc., much more commonly than when there is free nasal breathing. The statistics mentioned by the essayist—one hundred cases—prove nothing; he says there were some irregularity in four cases out of the hundred covered by the report. We might base some rational conclusions on nine hundred or a thousand cases, but a hundred cases prove nothing. Examination of the urine before the administration of chloroform or either is important, but even in this we may be deceived as we all know we may have advanced cases of kidney trouble without the urine showing any of the derivatives. I have not infrequently seen such cases. I reported one case to this society where there was advanced kidney disease, still the urine showed absolutely no derivatives. Doctor Samuel spoke of rythmical traction of the tongue; in my experience this is one of the best methods of resuscitation that we have. The closest call I ever had from the administration of chloroform was in a young robust Irish girl whose eye I enucleated at my clinic at the Louisville Medical College some time ago; the eye had been removed and while I was exhibiting it to the class calling attention to some peculiarities, the patient suddenly ceased breathing. All the methods known for resuscitation were employed without the slightest effect until I put a strong thread through the tongue and made rythmical traction upon it; the patient promptly revived and made a good recovery. Another method I believe of preventing the dangers of chloroform anesthesia is by cutting off the blood supply by means of an Esmarch bandage, for instance one or both legs, and when the operation is nearly completed if the patient shows any bad symptoms, loosen the Esmarch and liberate the so-called good blood, which is often followed by prompt restoration of the circulation, etc. If you want to obtund the centers before the administration of chloroform, I think bromide of potassium continued for some length of time would be less dangerous and equally as efficacious as morphine. The essayist spoke of experts giving chloroform; I am always in favor of experts, but all the deaths we have had in Louisville from chloroform have been when it was

administered by experts. Few deaths are recorded from chloroform in the country where it is impossible to get experts.

Dr. August Schachner :

As stated at the outset, the object of my paper was not to attempt to present anything new or original, but to gather available material as a basis for discussion. The point that I endeavored to make particularly plain was, that we should not lose valuable time in practicing hypodermatic injections while the patient is in the crisis, but in this stage should utilize the time with mechanical means of resuscitation.

I can see considerable advantage in what Doctor Weidner has said about the administration of morphine. As to the use of cocaine, personally I agree with the gentlemen who have spoken, and the ideas expressed in the paper were those of Rosenberg. I would hesitate to use a ten-per-cent. solution of cocaine, as I believe it too strong. Moreover, I think the same thing can be accomplished by the slow administration of the general anesthetic as by the administration of cocaine as advised by Rosenberg, and considering the dangers of cocaine I would hesitate to recommend it.

Speaking of the results of the Hyderabad Commission : In a paper read before this society last year (*American Practitioner and News*) I collected all the arguments which had been presented up to that time, which seemed to be decidedly against the conclusions of the Hyderabad Commission.

Report of a Successful Cæserian Section.

DR. J. WHITRIDGE WILLIAMS, Baltimore, Md.

The Clinical Society of Maryland, April 21, 1899.

THIS patient was a young white woman, age 22, who had never been pregnant before and who first consulted Dr. Kirby last summer. At that time she stated that she had been troubled for several years with pain in the back and lower abdomen and menstrual irregularity. The doctor examined her carefully and found a cystic tumor in the pelvis about the size of a cantaloup, connected he thought with the tube. He advised her to come back in the fall as it was not advisable to operate during the hot weather. At this second visit he found her pregnant and some months later she fell into my hands. I found a well nourished woman eight months pregnant, the fundus reaching up three or four fingers above the xyphoid cartilage and the child presenting by the breech. The pelvic cavity was encroached upon by a tumor that extended almost entirely across its posterior part and filled out the curve of the sacrum. The antero-posterior dimension was reduced from 11 cm. to about 7 cm. or a little less. In other words, a very marked contraction of the pelvis. The tumor presented to the touch a doughy consistence and appeared to be under high pressure. We thought we had to deal with an ovarian cyst and that the chances were it was dermoid in nature. I examined the woman the next day under chloroform and attempted to

push the tumor up into the abdominal cavity, but found, though I introduced the whole hand I could not budge the tumor and concluded that some other means of delivery must be adopted. At that time a number of possibilities suggested themselves as the best means of treatment. In the first place had we seen the woman earlier we could have done a laparotomy, remove the tumor and allowed the pregnancy to go on the usual course, but we found the pelvis now so markedly encroached upon that normal delivery was impossible. The possibilities were these. Should we open the abdomen, remove the tumor, sew up and let labor go on? We felt that it was hardly fair to let the woman go into labor and try to express a full term child with an abdominal wall that presented a cicatrix only a few weeks old. A second proposition was to induce labor, but here we would labor under the disadvantage of leaving the tumor and delivering a child whose chances of living were not great. A third was to let the woman go to full term, puncture the tumor and then let delivery occur. We concluded, however, that the best and most conservative thing to do was a Cæserian section, to take the living child out and then afterwards remove the tumor and thus relieve the woman of both at the same time.

I asked Dr. Kelly to see her with me and he agreed with me that that was the best method. The woman acquiesced in the proposed operation. She stated that this pregnancy was the result of a single copulation and accordingly we estimated the probable time of labor from the date of her last menstrual period and fixed our operation for one week previous to that time. We learned afterwards, however, that her statement was not correct and she went into labor a week earlier than expected.

We operated on Feb. 4th, early in the morning. The woman fell into labor at 3:30 in the morning and was examined by Dr. Dobbin who confirmed our previous opinion as to the position of the child. The cervix dilated to 4 or 5 cm. in diameter, the membranes ruptured and at 7 a. m. when I reached there we prepared to do a laparotomy. The single examination made by Dr. Dobbin was the only one made during the last month of her pregnancy. She was given a bath, thoroughly cleansed and placed upon the table in the horizontal position. I then made an incision in the median line of the abdomen 20 cm. long. The woman was quite fat and there was some hæmorrhage from the wound which was readily controlled, however, by clamps. After we had opened the abdomen the uterus was directly under the wound and we decided by the course of the round ligaments that the placenta was on the posterior wall of the uterus, so we made our incision in the anterior wall 15 cm. long. As soon as we had cut through the wall I passed my hand in, seized the child by the leg, turned and extracted it and the entire time from the beginning of the operation until the child was in the hands of the nurse was something less than three minutes. I then seized the placenta, extracted that and began to close my uterine incision. The uterus was at no time taken from the abdominal cavity. The uterine incision was sewed up by a dozen or fifteen deep sutures, extending through the muscle to the deep decidua but not

through it. I think not more than 4 ounces of blood escaped from the woman during the operation, and the uterus contracted nicely to the size of two closed fists by the time the sewing was done.

We still had the tumor to deal with and again passing my hand I brought up a cystic tumor from the right side; it was not such a cyst as we had expected, but a parovarian cyst filled with fluid. The abdomen was covered with sterile towels and the woman changed in position to that of Trendelenberg. The tumor was then removed in such a way as to leave the ovary on that side and part of the tube; simply removing the tumor. The abdominal wall was then closed with continuous catgut sutures, the muscles with silver wire and the abdominal wall being quite fat we ran catgut through the subcutaneous tissue and closed the skin wound by subcutaneous silk worm sutures. A silver foil dressing was applied with the usual bandages. At the end of the operation the pulse was less rapid than when we began. As soon as the child was delivered the cord was clamped and cut and the infant handed to the nurse. It did not cry at first, but before she took it to the next room for the hot bath it began to cry and so far as I know has been crying more or less satisfactorily ever since.

The entire operation took about 53 minutes, a great part of this being occupied in sewing up the uterus and abdominal walls. The child was in the nurse's hands within three minutes after the operation begun. The woman made a most excellent recovery and left the hospital 33 days after the operation. The highest temperature at any time was 101 and that was only reached twice. The reason for the temperature I think can be found in the condition of the woman's breasts, as she did not wish to nurse the child and it was put in an institution. The breasts were strapped firmly, but in spite of the treatment they became tense and painful. However, I think she recovered as rapidly and with as little discomfort as do four women out of five with normal labors. The dressings were removed after eleven days and a single linear scar was all that was left to show that an operation had been done.

Now a few words on the subject of obstruction to labor by ovarian cysts. Of course a large number of women have ovarian tumors and a large number of these have children without any particular difficulty. That is because the tumor rises up into the abdominal cavity as pregnancy advances, but if for any reason that tumor instead of rising up sinks down into the pelvis, it offers a very serious obstacle to labor. In 1849 an Englishman named Hart collected six cases of this kind and in 1867 Dr. Playfair was able to collect reports of 57 cases, which until recently represented the greatest aggregation of such cases known. In 1897, however, a physician of Aberdeen read a paper on this subject and stated that he had been able to collect 126 other cases which added to those of Playfair make a total of 183, and from these he attempted to draw a number of important conclusions. Out of these 183 cases fairly accurate statements were made as to the nature of the tumor in 110 cases and 50 per cent. of all were either dermoids

or malignant tumors. This is of importance when we remember that the results are worse to the women when the pelvis is impacted by a dermoid than when by an ordinary cyst and statistics show that in fifty per cent. of the dermoid cyst cases women die in consequence. When we ask what was the direct effect of all the cysts upon the women we find that a little over 30 per cent. died either during labor or the weeks immediately following and over half of all the children likewise died during the time of labor. These figures show then very clearly that an ovarian cyst impacted in the pelvis is a matter of grave importance and is a complication that may lead to the death of the woman in something like $\frac{1}{3}$ of all the cases even though properly attended to.

So we ask what is the best method to pursue when we meet with cases of this kind. I may say that the diagnosis is not usually made until the woman falls in labor, because while the woman may complain of some pain and discomfort they usually pass unnoticed; in only about 18 per cent. of the cases has the diagnosis been made previous to labor. If the diagnosis is made, however, what is the best method of treatment? I believe that if a cyst is diagnosed the woman should have an ovariectomy performed just as if she were not pregnant. On the other hand if the diagnosis is not made until a late stage of the pregnancy I should say try to push the tumor up out of the pelvic cavity into the abdominal cavity; if necessary this should be done under anesthesia. Having so displaced the cyst we try to bring down one of the foetal poles and thus prevent the tumor falling into the pelvic cavity again. If we can not do this we are brought face to face with the question whether we shall interfere at that time or allow the woman to go on to term before operating. I decided in my case on Cæserian section at term and I think the results show that I was justified.

In the vast majority of cases, as I have said, the diagnosis is not made until the time of labor. Of course we may try then to displace the cyst first and if we succeed the head will engage spontaneously or by means of high forceps. This is not always a simple matter, however, for we may by pressure produce a necrosis which leads to infection of the cyst and future trouble. If we cannot push the tumor up we find that all sorts of operative measures have been suggested. About eight different methods of treatment have been pursued and under each a certain number of women have fallen victims. A certain number of men leave these cases to nature and as a result the women die. The most popular method of treatment perhaps has been to puncture the cyst through the vagina and then extract the child. Two other methods have been to attempt version or apply forceps and attempt to drag the child past the tumor. In a number of other cases craniotomy has been done and a dead child has been delivered. Others have performed a laparotomy for removal of the tumor and allow the labor to proceed naturally.

To consider all these methods I should say we should not leave the cases to nature, but make up our minds upon some method of treatment. As to the vaginal puncture, that would appear to be the most rational measure, and

if we had known in our case in time the exact character of the cyst we might have done that, but the trouble is one can not tell in many cases whether the cyst is parovarian, dermoid, or not, and the consequence is if we puncture we will in about fifty per cent. of the cases let the contents of the dermoid or a malignant tumor into the abdominal cavity and subject the woman to the chances of death from peritonitis. Again the consequences of dragging the child out over an evacuated cyst is to subject the tumor mass to considerable pressure and the lowered vitality allows of infection from which the woman may die. Of course the application of forceps or any form of version in cases where the pelvis is obstructed is contraindicated unless the tumor is very small. Craniotomy is never indicated on a living child and to perform it on a dead child is only to subject the woman to more trouble. Laparotomy for removal of the tumor and spontaneous labor afterwards has been done several times, but has not proven very satisfactory. To subject a woman to laparotomy and immediately after that another operation is not a light matter and I shall hesitate to adopt it. To remove the tumor by the vagina of course can be done in a certain number of cases, but we are operating in the dark through tissues that may be easily infected.

The consequence is I should say that when we are called to see a woman in labor and find an obstructing tumor that offers serious obstacles to the passage of the child, if the woman be in good shape and competent assistance can be had Cæserian section in the hands of a competent man is the easiest and most conservative way of treating her. By all the other methods we deliver the woman by dangerous proceedings and some weeks or months later have to do a laparotomy any way to remove the tumor, so I think Cæserian section is the proper operation under these circumstances. It may not always be practicable. The country physician may not be able to obtain proper assistance and may not be able to do the operation by himself. I confess I should not like to do it alone and in such a case the best thing to do would be to puncture the tumor and extract the child, but in large cities where competent men can be called in I do not think that risk should be taken.

DISCUSSION.

Dr. B. B. Browne:

This has been a very interesting talk and the resume of the subject has been extremely useful. I have never had any experience with ovarian tumors in pregnancy, but I have seen three cases complicated by fibroid tumors and I think Dr. Williams has laid out the proper plan to be pursued in all these cases.

Exhibition of Dermatological Cases.

Dr. T. C. Gilchrist:

1st. Lupus Erythematosus. This patient has a typical distribution of the disease, assuming on the nose and both cheeks a butterfly appearance. It began on the cheek and then spread. The skin is thickened and covered

with scales, which when removed show pedicles projecting from the under surface. The process of the growth is very slow.

This patient is perhaps even more typical than the other for when the disease attacks the face it generally assumes the acute form. This patient has had the disease for about fifteen years. It began like scratch marks on the side of the nose and then gradually spread over the cheeks. The pedicles under the scales dipped down into the sebaceous glands.

This disease was the chief subject of discussion at the last meeting of the American Dermatological Society and was also one of the important subjects considered at the British Medical Association last year. It is one of the most inveterate diseases of the skin and there are various opinions concerning its etiology. It was at first supposed to be of syphilitic origin and later that it was allied to tuberculosis of the skin, but that theory was abandoned after further investigation. Recently, however, this same theory has come up again, except that it is now believed to be due to a toxine of tuberculosis and not directly to the germ. The tuberculin test has been tried and the disease has yielded to the test but that is not considered sufficient proof of a connection with tuberculosis because other diseases of the skin which have no such connection will also yield to this test. That the lesion itself is tubercular is not admitted by dermatologists.

The treatment practically consists in simple mild remedies in the acute form and stronger ones for the chronic cases, that is, in the acute stage one may use an ointment of zinc oxide, but in the chronic cases perhaps the best results are obtained by an application of carbolic acid.

2. Rodent Ulcer. This case began with a small scab on the left side of the forehead. This was followed by the appearance of a pimple, which after healing left a perfectly square scar. At the lower end of it is what appears to be a keloid. There was no history of injury and I was at first in doubt as to the diagnosis, but a section of the skin examined microscopically showed it to be a rodent ulcer which had been extremely slow in its growth. In the majority of cases those ulcers appear about the age of 40 and treatment of course is total excision.

3. Molluseum Contagiosum. So far as I know this disease has not been reported as having occurred in the colored race, but this is the third case we have seen. The rounded raised edge of the growth with a depression in the center is characteristic. Very often these molluseum growths spread all over the body and I have had two or three medical men come to me who had contracted them from patients. The disease is extremely rare in this country.

Treatment consists in curetting out the bodies. The disease is probably a parasitic origin.

The Doer—Yes, death stared me in the face, and I thought of all I'd ever done.

The Done—Noble fellow, to think of your friends at such a critical moment !
—*New York Journal*.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.
Editors and Proprietors.

W. H. WAKEFIELD, M. D.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.
J. HOWELL WAY, M. D., Waynesville, N. C.
J. ALLISON HODGES, M. D., Richmond, Va.
S. WESTRY BATTLE, M. D., Asheville, N. C.
GEO. G. THOMAS, M. D., Wilmington, N. C.

R. L. PAYNE, M. D., Norfolk, Va.
H. S. LOTT, M. D., Winston, N. C.
J. W. LONG, M. D., Salisbury, N. C.
H. A. ROYSTER, M. D., Raleigh, N. C.
ALBERT ANDERSON, M. D., Wilson, N. C.

J. P. MONROE, M. D., Davidson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

TREATMENT OF CANCER.

While it is undoubtably true that up to the present period our most successful means for combating this disease are distinctly surgical, yet even under favorable circumstances the results are not such as to permit us to relax our efforts in the search for an easier and better method of cure. There is moreover a large class of cases where, either from the length of time which has elapsed during which the cancerous mass has invaded the deeper structures, or the original site of the disease is too remote for surgical interference, the only hope of relief lies in the discovery of some new plan of attack.

Considerable interest has been aroused by the treatment of these inoperable cases with the mixed toxines of erysipelas and the bacillus prodigiosus with results that have seemed encouraging. Dr. William B. Coley has given his experience for the last six years with this method of treatment and while some other observers do not seem to have had the same amount of success, he has shown quite remarkable results in certain varieties of cancer—notably, the spindle cell sarcoma. Of 20 cases of this class receiving the mixed toxine treatment all were improved, and in 10 the tumor completely disappeared. The round-cell sarcoma does not seem to be nearly so amenable to treatment, as out of 80 cases, only 2 were cured, remaining well 1½ and 3 years respectively and 35 were improved. Since 1895, Coley has treated 8 cases successfully, the diagnosis being confirmed in 7 of these cases by means of the microscope.

The risk in using the toxine treatment consists in the employment of too large a dose (Coley recommends a small initial dose, which is gradually

increased) and in sepsis. Where these two dangers are carefully guarded against there does not appear to be any great risk, as in over 200 cases treated by Dr. Coley personally, death occurred in but two as a result of treatment. When we consider that all of the cases undergoing this treatment were of desperate character, most of them inoperable the favorable results given above would certainly justify a reasonable belief in the ultimate success of this or some similar plan of treatment.

In the meantime considerable advance has been made in the surgical treatment of mamary cancer as a result of the radical operation of Halstead and others. The mortality rate from operative measures has steadily declined with improved technique, and the number of permanent cures has increased, as may be seen from the following: In 1878 of 170 cases operated upon by Billroth the mortality was 23.7 per cent., while 82 per cent. of the remaining cases whose subsequent history could be obtained suffered a recurrence, only 8.3 per cent. remaining well and free from return of the disease 3 years and more after operation.

Since that time several operators have shown anywhere from 25 per cent. to 50 per cent. of cases free from recurrence. As regards the immediate effect of the operation Halsted has reported 76 consecutive operations without a death and others have reported equally favorable results. From this it would seem that operative measures have about reached the highest possible point of efficiency, unless a still greater success may be achieved by a more general resort to operation earlier in the disease. The next most important advance in the management of these cases will most likely be along some such line as that employed by Dr. Coley.

THE MEETING OF RAILWAY SURGEONS IN RICHMOND.

The city of Richmond is to be specially favored by the meeting within her gates of two important and highly interesting medical bodies. The International Association of Railway Surgeons, composed of representatives from Canada and Mexico, as well as from the United States, will meet in that city May 31st, and at the same time the Association of Southern Railway Surgeons, made up of the local surgeons along the lines of the Southern Railway will hold their usual annual meeting. It goes without saying that the occasion will be one of unusual interest and profit to that large class of medical men, part of whose duty it is to treat railway injuries. We have no doubt that the management of contused and lacerated wounds, as well as numerous other characteristic injuries, which almost make railway surgery a special branch, will receive full and free discussion and result in helpful suggestions. Dr. C. W. P. Brock of Richmond is chairman of the committee of arrangements, and Dr. Geo. Ross, Ex-President of the International Association is President of Association of Southern Railway Surgeons and has issued one of his characteristic circular letters extending an urgent invitation to all members of the association to be present. It will be a matter of great regret to the surgeons living in North Carolina that the meeting in Richmond conflicts with the North Carolina Medical Society, which will assemble in Asheville, N. C., on May 30th.

News and Items.

Liquified Air has been suggested as having a possible use in medicine as a means of cooling the sick room during the hot season.

The Jeffersonian is a new college magazine established and conducted by the students of Jefferson Medical College, Philadelphia. It is strictly an undergraduate magazine and should appeal to all alumni of this renowned school.

Whisky Biscuits.—"Whisky biscuits" are sold in some of the New York bakeries in the vicinity of the public schools. They contain jelly saturated with alcohol. An eight-year-old boy ate five of them and became temporarily insane.

Not Ready for Sacrifice.—"The doctor would like to see you inside," said the maid to the caller in the reception room.

"Not much," said the startled patient. "He can't try an X-ray on me."
—*Philadelphia Times*.

A Law Enforcing Professional Secrecy.—Governor Roosevelt has signed an amendment to the Civil Code which prohibits absolutely a physician from divulging any information concerning one of his patients, either before or after the death of the latter. Up to the present time the insurance law has permitted the physician to testify concerning the physical condition of a policy-holder.

Toledo Ohio claims the first place as the healthiest city in the world. With a population of 150,000, according to the report of the Department of Health, the death rate during 1898 was only 10.332. But now Columbus Ohio comes forward with a similar claim and shows a rate of 9.80. The State of Ohio is to be congratulated upon having within her borders two such salubrious cities.

Dr. William Pepper has presented to the University of Pennsylvania library, a collection of 500 medical books from the library of his father, the late Dr. William Pepper. The collection contains works of reference, treatises on special subjects and transactions of medical societies. Through Dr. James Tyson, a gift has also been made to the library, by H. Vail, consisting of climatologic observations taken at Santa Barbara, Cal., from 1888 to 1898, inclusive.

Resignation of Dr. John N. Upshur.—*The Richmond Journal of Practice* has the following to say regarding Dr. Upshur's resignation from the Chair of Practice in the Medical College of Virginia: "For seventeen years he has held responsible positions in this institution, the first being Acting Professor of the Practice of Medicine in 1882, and later, Professor of Materia Medica and Therapeutics for ten years. Since 1894 he has occupied the chair which he has just vacated. In all of his positions he was recognized as an able and progressive teacher. It is his purpose to devote his entire time to the practice of his profession."

Dr. Haig considers meat-eating, tobacco-smoking and tea, coffee and beer-drinking all contributory causes of suicide. The diet from which the greatest amount of uric acid is derived is the most dangerous. The conclusions seem doubtful.

A Committee from the University of Pennsylvania, consisting of Prof. Hermon V. Hilprecht, Dr. Stewart Culin and Mrs. Cornelius Stevenson, has been appointed to arrange for a representation of the University of Pennsylvania at the Paris Exposition in 1900. This committee will work in conjunction with those of Harvard, Yale and other American representatives. The University of Pennsylvania will prepare the exhibition on anthropologic and ethnologic specimens.

The Regulation of Marriage in North Dakota.—According to the *Philadelphia Medical Journal*, the so-called "Creel Bill" to regulate marriage has passed in North Dakota Senate. If it becomes law, no marriage license can be granted in that State unless applicants present a certificate from a legally established Board of Examiners showing that they are free from certain diseases, such as tuberculosis and hereditary insanity.

The first number of a new magazine with the title "*A Monthly Journal of Medicine, Surgery, and Hygiene*," has just appeared. It is edited by Wan Tun Mo, a diplomat of the Imperial Medical College, Tiensin, the Resident Surgeon, Alice Memorial Hospital, Hong Kong. The publication of this journal marks an epoch in the history of Western medical science in China. Slowly but surely the more enlightened Chinese are becoming convinced of the superiority of western methods of medicine, surgery and hygiene—*British Medical Journal*.

TO HIS DELINQUENT PATIENT.

If I should die to-night—
And you should come to my cold corpse and say,
Weeping and heart-sick, o'er my lifeless clay;
If I should die to-night—
And you should come in deepest grief and woe,
And say, "Here's that \$10 that I owe,"
I might arise in my great white cravat
And say, "What's that?"

If I should die to-night—
And you should come beside my corpse to kneel,
Clasping my bier to show the grief you feel;
I say if I should die to-night—
And you should come to me, and there and then
Just even *hint* 'bout paying me that ten,
I might arise awhile—but I'd drop dead again.

—*Gross Medical College Bulletin.*

Spick—A new doctor has moved in next door, but his very name would kill his business.

Span—What is it?

Spick—Phil Graves.—*Col. Med. Journal.*

Book Reviews.

Saunders' Medical Hand Atlases.—External diseases of the Eye, including a Brief Treatise on the Pathology and Treatment. By Prof. Dr. O. Haab of Zurich Authorized Translation from the German. Edited by G. E. de Schweinitz, A. M., M. D., Professor of Ophthalmology in the Jefferson Medical College, Philadelphia; Consulting Ophthalmologist to the Philadelphia Polyclinic; Ophthalmic Surgeon to the Philadelphia Hospital and to the Orthopedic Hospital and Infirmary for Nervous Diseases. With 76 Colored Plates and 6 Engravings. Philadelphia: W. B. Saunders, 925 Walnut street, 1899.

The sale of Saunders' Medical Hand Atlases has been unprecedented (200,000 copies), and in casting about for an explanation we find it is the usefulness of these works and the low price at which the publisher offers them to the profession.

The Atlas, External Diseases of the Eye, should be of especial value to the practitioner, as the 76 colored plates are true to life, and accurately present diseased conditions which the doctor is certain to encounter, while the accompanying text gives full description and treatment.

Diseases of the Ear, Nose and Throat and Their Accessory Cavities, by Seth Scott Bishop, M. D., D. C. L., LL.D., Professor of Diseases of the Nose, Throat and Ear in the Illinois Medical College, Professor in the Chicago Post-Graduate Medical School and Hospital, Surgeon to the Post-Graduate Hospital, one of the Editors of the Laryngoscope, etc. Second Edition. Thoroughly Revised and Enlarged. Illustrated with Ninety-Four Chromo-Lithographs and Two Hundred and Fifteen Half-Tone and Photo-Engravings. 6¼x9¼ inches. Pages xix-554. Extra Cloth \$4.00, or Half-Russia \$5.00 net. The F. A. Davis Co., Publishers, 1914-16 Cherry St., Philadelphia.

The first edition of this book was accorded a very flattering reception by the profession, and from a perusal of this volume, the second edition, it would seem that this fact had acted as a stimulus to the talented author, as he has thoroughly revised his book and added many improvements. Notable among these is the enlargement and greater detail in the treatment of the various diseases under this heading. Two new chapters have been written, one on "Related Diseases of the Eye and Nose," and the other on "Life Insurance Affected by Diseases of the Ear, Nose and Throat." Illustrated articles on "Direct Laryngoscopy, or Autoscapy;" and on "Pachydermia Laryngis," etc., have been added. Many new colored drawings and half-tone engravings from photographs of interesting and instructive cases, specimens, and preparations have been made for this edition.

The book is without question an authority on the subject of the ear, nose and throat.

The Cosmopolitan for May presents many attractive features. The United States Postal Service, which is called the greatest business organization in the world, is the subject of a most interesting paper by Postmaster General, Charles Emory Smith. The Ideal and Practical Organization of a Home, by Von Buren Denslow, LL. D., is one of the prize essays on this subject, the first of which appeared in the *Cosmopolitan* last month. Science in the Kitchen, by Anna Leach, shows the conduct of culinary department in the homes of some well-to-do folks. Adventures and Death in the Far North, A Railway to the Klondike, How the French Crossed the Channel, The Awakening, The Princes of Trebizond, Larry McNoogan's Cow, Fire Appliances, Wireless Telegraphy, The Moon Within Forty Miles, About Clothes and Fashion, show that this number is truly intended for every man according to his needs.

Review of Medical and Surgical Progress.

The Vitality of Epithelial Cells, and the Etiology of Cancer.—What the nature of the irritant may be that causes the localized growth of epithelial cells which we call cancer, we are yet no nearer knowing than we were before the demonstration of its exact pathology, more than half a century ago. Notwithstanding all the claims that have been made of the casual influence of external biologic factors, parasites from bacteria, and fungi, schizomycetes, and blastomycetes to various forms of animal parasites, gregarines and protozoa generally, we are no nearer the solution of the problem than we were before.

Of late the subject has been approached from the other side, the essential vitality of epithelial cells and their reaction to various irritants, and some most interesting results have been obtained by various observers. In Dr. Hektoen's review of this subject for the first number of "*Progressive Medicine*"* (the advance sheets of which are in our hands), we find some striking observations on the subject collated. Ljunggren, a Scandinavian physician, for instance, found to his surprise that he could preserve carefully sterilized bits of human skin in sterile human ascitic fluid for months, and that the cells of the tissues retained their vitality. Three months after their removal from the body the cells of the deeper layers show well stained nuclei, and good protoplasmic structure. Successful transplantation was made with pieces kept in such sterile fluid for a month. Small pieces of the transplanted skin were removed at varying intervals, and it was found that a marked proliferation of epithelial cells showing many nuclear figures had occurred. Special precautions were taken which absolutely assured the absence of cells that might have grown in from the surrounding cutaneous margin and so vitiated the conclusions. The transplanted cells not only grew over the raw surface, but penetrated, also, into the granulation tissue beneath, after the manner of a beginning carcinomatous growth.

Almost more interesting and suggestive than this are the observations made by Loeb here in America on epithelial regeneration. The abstract of them by Dr. Hektoen in "*Progressive Medicine*" is so clear and succinct that we copy part of it verbatim: "From the margin of a tissue-defect huge epithelial protoplasmic or plasmodical masses move in a sliding manner over the naked surface, inclosing and dissolving the crust and other obstacles. Regenerating epithelium readily removes such substances as cartilage when placed in its way. Below the protoplasmic layer epithelial cells wander in from the margins of the defect, and often grow down into the connective tissue, apparently checking the growth of the latter. The process is closely allied to changes in carcinoma. At the same time active changes, such as mitoses, occur in the epithelial cells removed some distance from the margins of the wound. * * * Loeb believes that the wandering of the cells as outlined, is in response to stereotropism, and forms a determining factor in

inducing mitosis in the remaining cells." The pregnant significance of these observations, especially the apparent action at a distance of epithelial elements in arousing epithelial cells into reproductive and germinal activity, can scarcely be overestimated. This is the essence of carcinoma, though in healthy subjects the vital resistance may be sufficient to restrain the morbid overgrowth that would otherwise result.

According to Loeb, "if a small bit of epithelium is placed in the centre of the crust covering a defect in the skin, it begins to send out processes in all directions into the crust, the cells acting as separate organisms, independent of blood supply or nervous influence." We are evidently closely in touch, in these manifestations, with the as yet inexplicable vital forces that we see at work in all their untrammelled energy and power in cancer. Further observations are needed to give the deductions from these observations practical application. They constitute, however, the most hopeful aspect of the present pathological work on cancer as far as regards the near prospect of discovering its etiology. Their value as additions to biological science, especially to that mysterious problem, the struggle for life among the various cells of the body tissues, can scarcely be overestimated.

**Progressive Medicine*," a Quarterly Digest of New Methods, Discoveries and Improvements in the Medical and Surgical Sciences. Volume 1, No. 1, March, 1899. Edited by Hobart A. Hare, M. D. Lea Brothers & Co., New York and Philadelphia.

Cancer.—In the current number of the *Practitioner*, "A Special Cancer Number," the geographical distribution of cancer in England and Wales, the question of its infectivity, its alleged increase, and its prevention and cure, are succinctly reviewed by various writers. Unhappily, theories, experience, and experiments, have added but little to our exact knowledge of the origin and treatment of this terrible malady; and the profound obscurity which surrounds it is not appreciably lightened by the various contributions to the subject. All that seems to be known with certainty is, that no specific method of treatment can be relied upon. Professor Watson Cheyne and many others are of the opinion that cancer is at first local rather than constitutional, and that if it is detected early and operated upon freely the patient may be cured. The fact remains, however, that, in a great majority of cases, even the most radical operations confer but a relatively slight increase of the patient's life. It is not even definitely known whether the common belief that cancer is increasing has any justification in fact. Most authorities take the increase for granted, but Dr. Newsholme, who contributes some most interesting statistics, hold that improved notification, more accurate diagnosis, and more frequent necropsis, are responsible for the apparent increase.

The difficulty of dealing with records of disease is longstanding. Thus the seeming formidable increase in insanity, from which so many profound morals have been drawn, is probably largely explained by the fact that the exchequer subventions tempt Boards of Guardians to send their weak-minded paupers to lunatic asylums. It is thus that unsuspecting causes often

account for variations in statistics. However this may be, it is claimed that one out of every nine women in this country who reach the age of 45, and one out of every fourteen of the men who attain that age, die of cancer; a death-roll more than four times that of typhoid fever, and larger, notwithstanding its limited field of activity, than that of either measles or whooping-cough. Dr. Newsholme makes out a strong case for his theory, and we can but hope that his statistics, terrible as they are, portend a final triumph for medical science over this special enemy of middle life and old age.

From Dr. Newsholme's paper it would appear that the irritating effects of the products of imperfect coal combustion are much more apt to produce cancer than the handling of crude coal, though coal-heavers have a somewhat high proportional cancer rate. The low mortality figure for coal miners suggests that they enjoy a comparative immunity from cancer as well as from phthisis. Increased atmospheric pressure has been suggested as a possible explanation of this alleged immunity. The consumption of malt liquors has been cited as a predisposing cause of the disease, and this is supported by de Becker's starch-cell theory. The autositic theory, which, in the light of recent pathology, ascribes cancer to a reversion of the natural cells, or cell elements, to the primitive amœbiform condition from which all cells have emerged and in which a few persist, has also been advanced as an explanation of the disease. It is claimed that the autositic cell, which becomes a quasi-independent parasite, preys, exactly as a parasite would, upon the cells of the surrounding healthy tissues, and, sooner or later, causes the death of the adjacent normal cells, ultimately bringing about the somatic death of the whole organism.

Sir James Paget says that "cancer is a disease of degeneracy, the frequency of which increases as age advances." Why this is so remains unexplained, as the cause of the disease remains unknown, and the wisest cannot say why the young escape whilst men and women of more advanced life are afflicted in such numbers. The theory of mental anxiety does not seem to be borne out by the fact that the mortality figure for medical men, whose anxieties and responsibilities are so great, is only 43, while it is as high as 70 for brewers. Neither do the conditions of town life afford any explanation. Although the record of deaths from cancer in London is exceptionally high, the records of many other large cities are proportionately low.

The ætiology and histology of cancer form the subjects of Mr. H. G. Plimmer's paper. Mr. Plimmer, who is pathologist to St. Peter's Hospital, records the result of his extensive investigations, which have led him to the conclusion that cancer is of parasitic origin. During the past six years he has microscopically examined 1,278 cancers in 1,130 of which he found parasitic organisms. He has been able to isolate an organism which, in certain animals, was able to cause death by the production of tumours in various parts. Although as yet it cannot be positively stated that Mr. Plimmer has verified his theory as to the ætiology of cancer—he himself

admits that there may be more than one cause—his investigations are likely to result in a valuable addition to our knowledge of the subject. If cancer is of parasitic origin, it must, as the editor of the *Practitioner* points out, be regarded as communicable by inoculation. Mr. Plimmer's experiments may or may not ultimately establish the infectivity of cancer, but, apart from any pathological theory, there is much in clinical observation to suggest that the disease is, occasionally, at least, communicated in the same way as tuberculosis.

Mr. D'Arcy Power, in his article on "Cancer and Cancer Houses," contributes some curious observations on the remarkable manner in which the disease is distributed, and the way it seems to cling to certain spots and groups of buildings irrespective of their size and age. The following is a case in point:—

Miss B., aged 45, housekeeper, lived in a certain house in a suburb of London for 13 years, and died of cancer of the stomach in 1884. Miss T., aged 47, who had lived in the house for 20 years, then became housekeeper, and occupied the bed room previously used by Miss B. In October, the following year, 1885, Miss T. died of cancer of the liver. Mrs. J., aged 67, who had lived in the house for 8 years, succeeded to the place and bedroom successively occupied by Miss B. and Miss T. Mrs. J. died of cancer of the breast and uterus in 1893. Each of these patients appeared to be in perfect health until they took one another's place as housekeeper. There was no blood relationship between them.

The paper on "The Geographical Distribution of Cancer," by Mr. Alfred Haviland, is extremely interesting. The result of his enquiries is that in England and Wales limestone districts are always associated with the lowest mortality from cancer, and flooded clays with the highest. Mr. Haviland has mapped out the sanitary districts, and appears to have very satisfactorily established his facts.—*Medical and Surgical Review of Reviews, London.*

Prevention of Cancer of the Uterus.—Dührssen (*Deutsche med. Woch.*, Jan. 26) asserts that in Germany cancer of the uterus produces a death-rate three times as high as that from puerperal fever, and among women, between 46 and 50, equal to that of the German army during the Franco-Prussian war. He proposes (1) that every woman should be warned of this danger and taught the symptoms so that she could seek advice early. At present only 10 to 30 per cent. of the cases are operable when first seen, and of these only a third or a quarter, forming about one-tenth of the whole, are definitely cured. (2) When a woman seeks advice for any abnormal discharge or hæmorrhage, she should be examined thoroughly, bimanually, and with the speculum, and if these methods reveal nothing wrong the curette should be used and a piece of the mucous membrane excised for microscopic examination.

Better than the early diagnosis and removal of carcinoma is its prevention. In every woman at the climacteric period it is not only justifiable but

urgently advisable, if there be any abnormal discharge or hæmorrhage, especially profuse menstruation, to destroy completely the mucous membrane, from whose epithelium carcinomata grow, and which in such a case is invariably abnormal. Sneguireff's vaporisation (steam) method (*v. "Review,"* Vol. I, p. 103 and p. 223) is well adapted for this purpose. Another method is to extract the body of the uterus by the writer's operation of anterior col-pœliotomy (*v. "Review,"* Vol. II, p. 192,) to split up the anterior wall vertically in its whole length, and to excise the mucosa completely, cutting off the vaginal portion of the cervix at the same time. The wounds are then sutured and the uterus is replaced. Sängér has proposed the introduction of zinc chloride tents, but this is painful, and frequently unsatisfactory, as islets of mucous membrane may be left from which the whole mucosa is quickly regenerated.

In younger women, in whom it is of importance not to destroy the functional activity of the uterus, a relative immunity can be attained by performing Schröder's high amputation of the cervix, since cases of cancer of the body form only 3 to 10 per cent. of the total number and offer a better prospect of cure than those of the cervix.

v. The above abstracts are from the Medical and Surgical Review of Reviews, London, England. Nathan E. Boyd, M. D., Editor. This magazine gives in abstract form the cream of Medical literature. Price \$5 per year.

Surgical Hints.—Never allow a room to be swept or dusted just before an operation. Cover everything with wet sheets, if necessary, so as to prevent the raising of dust.

When you have blood on your hands, first wash them in pure water. Using soap at first is a mistake, as soapy water does not dissolve blood rapidly. Clear water and a nail-brush should come first, soap next.

In all amputations, remember that the loose muscles retract more than those which are attached to the bone. Hence it is better to sever the loose muscles first, and the attached ones next, so that the ends may be of equal lengths.

If you believe that the operation has been a clean one, leave the wound alone, if not an infected one: The best surgeons usually apply but one dressing, the first. When this is removed the stitches are taken out, and the wound only needs a clean covering for a few days.

Before giving ether to patients suffering from catarrh of the nasal passages, wash these out with an alkaline solution. This will, by cleaning out the secretions, allow much easier breathing, and hence increase the facility with which anesthesia can be induced.

Scalp wounds should always be stitched, if of any size. But always remove the stitches very early; otherwise they may act as setons, and lead to suppuration which, if it reaches the loose layer under the aponeurosis, is

likely to be serious. These wounds only gape if the scalp muscle or its aponeurosis is incised, and a very few stitches are needed.

In cases of felon, find out as soon as possible whether the bone is attacked. Should the terminal phalanx become loose, amputation will nearly always give the most useful finger, especially to workmen. The amputation, however, is best delayed until the septic process is overcome, or else the flaps will probably die, and the time needed for healing by granulation will be greater than that taken up in previous antiseptic treatment.—*International Journal of Surgery, January, 1899.*

Medical Society of the State of North Carolina.

Program of the Forty-Sixth Annual Meeting, Tuesday, Wednesday, Thursday and Friday, May 30, 31, June 1 and 2, 1899.

OFFICERS AND COMMITTEES.

President—L. J. Picot, M. D., Littleton.

Vice Presidents—I. W. Faison, M. D., Charlotte; H. H. Dodson, M. D., Milton; J. W. White, M. D., Wilkesboro; W. C. Brownson, M. D., Asheville.

Secretary—Geo. W. Pressly, M. D., Charlotte.

Treasurer—G. T. Sikes, M. D., Grissom.

Orator—H. S. Lott, M. D., Salem.

Essayist—C. L. Minor, M. D., Asheville.

Leader of Debate—J. P. Munroe, M. D., Davidson.

Board of Censors—W. O. McDowell, M. D., Scotland Neck; H. H. Harris, M. D., Wake Forest; J. H. Tucker, M. D., Henderson.

Publication Committee—R. J. Brevard, M. D., Charlotte; J. C. Montgomery, M. D., Charlotte; R. D. Jewett, M. D., Winston; H. T. Bahnson, M. D., Salem.

Legislative Committee—R. H. Lewis, M. D., Raleigh; G. T. Sikes, M. D., Grissom; Abner Alexander, M. D., Columbia; James McKee, M. D., Raleigh; H. A. Royster, M. D., Raleigh.

Obituary Committee—Geo. W. Long, M. D., Graham; J. A. Reagan, M. D., Weaversville; K. P. Battle, M. D., Raleigh.

OFFICERS OF SECTIONS.

Pathology and Microscopy—E. B. Glenn, M. D., Chairman, Asheville.

Anatomy and Surgery—Goode Cheatham, M. D., Chairman, Henderson.

Medical Jurisprudence and State Medicine—Thos. F. Costner, M. D., Chairman, Lincolnton.

Obstetrics—W. W. McKenzie, M. D., Chairman, Salisbury.

Gynecology—Wm. A. Graham, M. D., Chairman, Charlotte.

Practice of Medicine—Ben K. Hays, M. D., Chairman, Oxford.

Materia Medica and Therapeutics—C. S. Mangum, M. D., Chairman, Chapel Hill.

Chemistry and Physiology—Joshua Tayloe, M. D., Chairman, Washington.

FIRST DAY:

Tuesday, May 30th, 1899, 10 o'clock, a. m.

The Society called to order by Dr. M. H. Fletcher, of Asheville, Chairman of the Local Committee of Arrangements.

Prayer by Rev. W. M. Vines, Pastor First Baptist Church of Asheville.

Address of Welcome by Locke Craig, Esq.

Response by Benj. K. Hays, M. D., of Oxford.

Roll Call.

Presidents' Message.

Appointment of Committees.

Report of the Section on Practice of Medicine, Benj. K. Hays, M. D., of Oxford, Chairman, "The Continued Fevers of North Carolina."

J. Howell Way, M. D., of Waynesville, "Clinical History and Prognosis of Continued Fever as Seen in the Mountain Section of N. C."

W. L. Robinson, M. D., of Danville, Va., "Treatment of Typhoid Fever."

Report of Committees.

Adjournment.

3:30 o'clock, p. m.—Report of Committees.

Report of the Section in Practice of Medicine (continued.)

James M. Parrott, M. D., of Kinston, "Hemorrhagic Fever."

J. F. Highsmith, M. D., of Fayetteville, "Typhoid Fever as met with in Fayetteville and surrounding country."

Jno. E. S. Davidson, M. D., of Lowesville, "Meningitis."

R. E. Zachary, M. D., of Wilmington, "Pernicious Malarial Fever."

Wm. J. McAnally, M. D., of High Point, "Chronic Gastro-Intestinal Catarrh."

Report of Section on Pathology and Microscopy. E. B. Glenn, M. D., of Asheville, Chairman, "Study of the Bacteriology of Specific Urethritis."

Paul Pacquin, M. D., of Asheville, "Biology and Pathology of Mixed Infection in Tuberculosis."

Volunteer papers under this section.

Report of committees.

Adjournment.

SECOND DAY.

Wednesday, May 31st, 1899, 10 o'clock A. M.

Appointment of committees.

Report of committees.

Report of Section on Obstetrics.

W. W. McKenzie, M. D. of Salisbury, Chairman—"Antiseptic Midwifery."

J. W. Long, M. D. of Salisbury—"Ectopic Pregnancy."

I. W. Faison, M. D. of Charlotte—"The Management of Normal Labor."

David A. Stanton, M. D. of High Point—"The Application of Forceps in High Presentations."

Report of the Board of Medical Examiners.

Report of the Section on Medical Jurisprudence and State Medicine.

Thos. F. Costner, M. D. of Lincolnton, Chairman—"Juvenile Criminals."

G. A. Ramsaur, M. D. of China Grove—"Propagation of Typhoid Fever and other Infectious Diseases."

Robt. L. Gibbon, M. D. of Charlotte—"Juvenile Criminals."

12 M. Conjoint meeting with the N. C. State Board of Health.

Adjournment.

2:30 o'clock, p. m.—Election of Officers for 1900.

Adjournment into the hands of the Local Committee of Arrangements.

8:30 o'clock, p. m.—Annual Oration—"The Practice of Medicine," by H. S. Lott, M. D., of Salem.

Annual Essay, by Chas. L. Minor, M. D., of Asheville.

THIRD DAY.

Thursday, June 1st, 1899, 10 o'clock, a. m.

Report of committees.

Report of section on Gynecology. Wm. A. Graham, M. D., of Charlotte, Chairman.

Chairman's Report.

Joseph Price, M. D., of Philadelphia, "The Importance of Early Operation in Pelvic Disease."

Selection of Place and Time for Next Meeting.

Report of Section on Anatomy and Surgery.

Goode Cheatham, M. D., of Henderson, Chairman, "Asepsis and Antisepsis in Surgery."

F. T. Meriwether, M. D., of Asheville, "Some Remarks Upon Coley's Treatment of Malignant Growths."

M. Bolton, M. D., of Rich Square, "Interesting Case of Renal Calculus."

R. E. Zachary, M. D., of Wilmington, "Chronic Ulcers of the Leg and the Different Methods of Treatment."

W. B. Pritchard, M. D., and John A. Wyeth, M. D., of New York City, "Report of a Case of Brain Tumor Relieved Symptomatically by an Exploratory Operation Upon the Skull."

Adjournment.

3:30 o'clock, p. m.—Report of Committees.

Report of Section on Materia Medica and Therapeutics.

C. S. Mangum, M. D., of Chapel Hill, Chairman, "Progress in Serum Therapy."

E. A. Moye, M. D., of Greenville, "Aconite Poisoning, Its Diagnosis and Treatment, with Report of a Case."

J. C. Rodman, M. D., of Washington, "The Use of the Normal Salt Solution in the Treatment of Disease."

E. B. Goelet, M. D., of Saluda, "Electricity as an Aid to the Physician and Surgeon."

Annual Discussion—J. P. Munroe, M. D., of Davidson, Leader, "Conservatism in Surgery."

Report of Cases, Joshua Taylor, M. D., of Washington.

Volunteer Papers.

Adjournment.

FOURTH DAY.

Friday, June 2nd, 1899, 10 o'clock, a. m.

Report of Committees.

Report of the Committee on Pittman Prize.

The Pittman Prize Essay by the Author.

Unfinished Business.

Volunteer papers.

Unread Papers in any Section.

Miscellaneous Business.

Final Adjournment.

N. B. Volunteer papers may be read as the closing papers of their appropriate section, with the consent of the Chairman.

THE PITTMAN PRIZE.

A prize of \$100 will be given for the best essay on a subject pertaining to medicine. Provided, 1st, That it shows some originality on the part of the author. 2nd, That it comes up to a standard of excellence determined by the committee. 3rd, That the author write under an assumed name, that he shall place this assumed name upon the outside of a sealed envelope within which envelope is contained the real name of the author, that the envelope so arranged shall be handed in to the committee along with the essay. 4th, That the contestant be a member of the State Medical Society of North Carolina. Essays may be handed to the Secretary during the meeting or sent to him at any time previous.

This prize is the gift of one who honored the society by his life and character, the late Dr. N. J. Pittman, and it is worth striving for, not only for the reward and honor, but also in memory of the giver and for the interest of the Society.

We urge this matter upon the attention of every member of the Society, and hope that we may have a number of essays for consideration by the committee.

TRANSPORTATION.

Mr. W. H. Fitzgerald, commissioner for the Associated Railway of Virginia and the Carolinas, has kindly granted the following rates:

Blacksburg, S. C	\$ 4.65
Charlotte	6.35

Danville, Va.	9.60
Fayetteville	11.75
Forest City	4.50
Greensboro	7.75
Goldsboro	12.80
Henderson	11.80
Hickory	4.05
Lattimore	5.25
Maxton	11.75
Marion	2.25
Mooresboro	5.00
Durham	9.80
Newton	4.45
Norfolk, Va.	18.45
Raleigh	11.00
Rutherfordton	4.25
Rural Hall	9.40
Sanford	11.00
Selma	12.00
Shelby	5.75
Suffolk, Va	17.85
Wilmington	14.85
Winston-Salem	8.80
Weldon	15.20

for the round trip to Asheville and return.

Tickets will be on sale May 24th and 25th for the Board of Examiners and applicants; May 28th, 29th and 30th for the meeting of the Society. All tickets good until June 14th. Your local ticket agent can give you any other information. The above prices from junctional points; proportional rates from any point in the State.

Special rates will be given at the hotels:

Battery Park	\$2.50
Berkley	2.00
Swannanoa	1.50
Oaks	1.50

A cordial invitation is extended every physician in the State to be present at this meeting. The members of the Society are especially urged to come and help make the semi-centennial year a notable one in the history of the Society. Let every man talk Society from now on and bring any physician, who is not a member, with you when you come.

Foetid Feet :—

- R. Dest. fennel oil, Oj.
Chloral hydrate, gr. xxxv.
Borax, gr. xv.

M. Sig. Wash the feet night and morning.—*The London Practitioner.*

Reading Notices.

ULTRO-OVARIAN PAIN.—Prompt relief, unaccompanied by habit or untoward after-effect, is what the up-to-date practitioner desires most in these cases. If the pain is over the lower border of the liver, or lower part of the stomach or in short, be it headache, sideache, backache or pain of any other description caused by suppressed or irregular menstruation, it will yield to five grain tablets of Anti-kamnia. This dose may be repeated in an hour or two, if needed. For very prompt relief, it is advisable to crush the tablets and swallow them with a little wine, diluted whisky or toddy.—*Ohio Medical Journal*.

Messrs. Finger & Anthony, Electro-Platers and Manufacturers, Salisbury, N. C.:

GENTLEMEN: Let me thank you and congratulate you heartily, for the beautiful plating that you have done for me. No one could tell but the instruments were just from the manufacturer's shop—the plating and finish are perfect—especially so on the obstetrical forceps, which had been almost ruined by acids and corrosives. There is no use of throwing away instruments for the want of polish and plating when such beautiful work as you do can be done. You can count on any and all such from me when I have any to do.

Yours truly,

J. E. SMOOT, M. D.

Concord, N. C., April 12, 1899.

SANMETTO ALWAYS RELIABLE IN STRENGTH.—I have one word of praise to say for Sanmetto, viz: that the last bottle gives the same results as the previous one, or in other words, Sanmetto is always reliable in strength.

MARK C. MYERS, M. D.

Kansas City, Mo.

"VIN MARIANI" is essentially the brain and nerve tonic of those who have talent and genius. These it is who compose the great army of intellectual workers, and the ravages made upon their nervous systems by the demands made upon them are at times truly appalling. This damage and consequent drain yield to nothing more quickly than to "Vin Mariani." The most noted European physicians, literateurs, musicians, singers, artists and diplomats have sent the most flattering letters to M. Mariani extolling his product. Not only these but crowned heads as well have been mentally invigorated and rejuvenated by "Vin Mariani" and never tire of speaking words in its praise. It must be acknowledged that unsolicited testimonials, couched in such glowing terms, from such sources, are the best evidence possible that can be afforded for the merits of the preparation. When "Vin Mariani" becomes as well known in this country as it is in Europe, it will be adopted as one of the indispensable remedies in the household.—*The St. Louis Medical and Surgical Journal*, May, 1899.

FAMILIAR CLINICAL PICTURE.—One of the most common class of cases is that in which there are no well defined characteristic symptoms of organic diseases but in which there are disturbances of practically all the functions of the body. This condition is variously termed general debility, malnutrition, general atony, etc. The symptom-group is an exceedingly complex and varied one, but the most striking disturbances are those connected with the processes of metabolism; the patient is unable to replace by food the active waste occasioned by the physiologic functions. In consequence of this, nutrition suffers, vital force

becomes diminished and there is functional disturbance of practically all the organs of the body. The stomach and the processes of digestion become partially enfeebled and as a consequence there arise the symptoms of atonic dyspepsia, with lack of appetite and inability of the digestive organs to prepare the food for assimilation. The patient's vital powers are at a low ebb and nature's method of recuperation, that is, by assimilation of food, is effectually inhibited by inability of the organs to furnish the required properly prepared nourishment. Every physician has many times realized the absolute uselessness in these cases of the ordinarily employed tonics, iron, arsenic and strychnine. It is soon apparent that the remedies are either not absorbed or if they do enter the system, they fail absolutely to re-establish the proper ratio of metabolic waste and repair. It is now universally conceded by authorities that the first requisite in the treatment of this class of cases, is to foster the patient's nutritive functions so that food will become assimilated and thus restore wasted tissue and impaired vital forces. The stomach is the organ of prime importance and its normal functional activity must be re-established by remedies which have a direct tonic alterative and stimulant influence upon its enfeebled, inactive mucous membrane. Stomachics—gentian, taraxacum, phosphoric acid, etc.—are the agents of most service. When, however, these stomachics are combined in a certain manner with a remedy which, according to the highest medical authorities, is the best promoter of assimilation, the indications for treatment are completely met. Gray's Glycerine Tonic Comp. combats malnutrition upon the most rational scientific basis, that is, it re-establishes normal nutritive processes by its stimulant and alterative influence upon the digestive organs and also furnishes the wherewithal—glycerine—to cause the assimilation of food and medicines. It gives nature the needed chance to resume its normal work of repairing exhausted vitality and wasted tissues. While primarily a stomachic Gray's Glycerine Tonic Comp. is of greatest value in all conditions of systemic depression or exhaustion occurring either independently, or as a consequence of severe organic diseases such as tuberculosis, Bright's disease, etc. It antagonizes depression by propping the natural functions of the body, by engendering appetite and ensuring the absorption and assimilation of food—nature's method of repairing waste.

"This is the bill from your oculist," said the collector to Mr. Grimly.

"Just take it back to him and tell him that I can't read it with those glasses he sold me."—*N. A. Medical Review*.

"This thermometer," said Rivers, looking at a cheap one that was indicating a temperature of something like 40 degrees below zero, "is like a snide medical college. Its degrees are bogus."

Send us the names of two or three physicians to whom we may send sample copies; if you are pleased with the NORTH CAROLINA MEDICAL JOURNAL, drop them a card in our favor.

The Journal of Tuberculosis, a quarterly, published by A. H. McQuilkin at Asheville, N. C., has made its appearance. Karl Von Ruck is the editor of the new venture. It "is a beginning toward what is hoped to be the gradual establishment of a representative publication of American endeavor and progress in dealing with the prevention and cure of tuberculosis," says their salutatory.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIII.

CHARLOTTE, JUNE 5, 1899.

No. 11

Original Communications.

President's Address, Annual Meeting, North Carolina Medical Society, Asheville, N. C., May 30, June 2, '99.

Gentlemen of the Medical Society of North Carolina :

I congratulate you upon this your third meeting in this delightful city of the mountains where there is so much to charm the eye and elevate the mind. In this inspiring clime your faculties will doubtless appear at their very best. Since the abandonment on the part of your presiding officers of the old time custom of delivering an address upon some Medical subject, my immediate predecessors in office have adopted a course of discussing questions of passing interest or of importance for the better government of your body. I can see no reason why I should not follow this well beaten track. Much ground has been gone over, and in some instances we have found it expedient to retrace our steps. I hope now that we have reached a position sufficiently high to almost adopt the motto of "Nulla vestigia retrorsum." I heartily congratulate you upon the most distinctive and by far real advancement you have had in many years. It is a complete attainment of the wishes and purposes of your most advanced thinkers for years. Many eloquent pleas have been made for a higher standard of medical education in this State. A number of plans to reach this end have been discussed and proposed by your former Presidents. To their constant repetition of, and urging this question we owe its happy solution at last. "The Gordian Knot" has been severed at one stroke by Legislative enactment. The passing of the act to require applicants for license to practice medicine in this State to exhibit a diploma from some medical college having clinical facilities, and a minimum curriculum for three full years of study is a wise one, and I feel sure will meet with your unqualified endorsement. Unstinted praise is due to the efforts and wisdom of your committee on medical legislation, and particularly to its chairman in securing the passage of this law. It was a fortunate circumstance that this society had a strong representation in the Legislature. It is a source of gratification that in recent years every legislature contains some of your foremost members who always guard your interest with

watchful care. This law should mark a new era in the history of your progress. From this time forward the records of the Board of the Medical Examiners will show a greatly decreased percentage in its rejections and re-examinations. The duties of the Examining Board, instead of being as heretofore trying and burdensome in the extreme, will be light and pleasant.

The probability of any applicant for license being rejected as many as five or six times is hardly to be considered. So that all future Boards are to be felicitated upon the passage of this measure. All this has been accomplished by the sentiment of united profession. At the first Inter-State conference of the Examining Board held in Washington two years since, Dr. Rauch, President of the Illinois, severely criticized the medical law of North Carolina, in that it admitted to examination all classes of applicants without regard for educational qualifications. The lamented and beloved Dr. Thos. S. Wood joined with me in defence of our law, while we were painfully aware of its defects. To such constant and zealous workers as Dr. Wood do we owe the present comparative efficiency of our medical law, after which in the main other States have been modelled. You have been the pioneers of medical legislation in this country; and if you cherish this spirit of progress, as no doubt you will, you will always maintain a position with the foremost medical societies of this country. From your constant education of the people, you have at least secured their moral support, and they are looking to you today to devise methods to stay or prevent the march of disease. I can very well remember, and so can many of you, when it was thought by many of the laity that the Medical Society was only organized to maintain a standard of high charges for services, and expressed great surprise when told that no such thing had ever been discussed in a meeting. Now, whenever there is a Medical Convention, the newspapers are eagerly read to learn what the doctors are doing to prevent or cure disease. We are often asked after a return from our conventions, after the usual inquiries as to the personnel of the new officers, if anything has been found out to cure cancer or consumption; they read and ask about germs, too.

But a few weeks since a distinguished United States Senator gravely informed me that pneumonia was, beyond controversy, caused by germs, and that turpentine would certainly kill the germs and cure pneumonia. I promptly excused him for suggesting turpentine on the ground of State pride and loyalty to a North Carolina product. This is in strong contrast to the preacher, who a few days after, asked if I believed vaccination would prevent small pox. It is probable that he had been reading the "London Anti-Vaccination Reports."

The utility of the Board of Health is recognized by the people of the State. The recent bi-ennial report is a credit to its officers, and compares favorably with the reports of any other State.

No water company can now set itself up in business in any town in this State without proper consultation with, and advice from constant medical authority. It has come to be known that no one can jeopardize the health of

another or of a community without let or hindrance. In any sudden outbreak of disease in the county, town or city, the help of our health officers is at once invoked to abate it. An apt illustration of this is furnished by the recent development of small pox cases in various sections of the State, and if any proofs are needed to show the efficiency of the work of the State Board of Health and its auxiliary county boards, they are ample. The people now look upon these boards of health as matters of necessity, and appeal to their officers for help in the hour of danger. The State Board of Health within the last year has held conferences with the people upon interests pertaining to the public health in different towns in the State. These conferences should be encouraged, and held oftener, as they have proven useful object lessons in helping to educate the people to a knowledge of hygienic laws. They have begotten a confidence on the part of the people in all matters pertaining to the laws of health.

It has taken many years of patient zeal and work to bring about these relations between the people and the profession. Many of those who worked for years to accomplish this end have gone to their last reward, leaving us to continuously build upon the foundation so wisely laid.

I am rejoiced to say, in your membership, there are young men full of ambition, and thoroughly qualified by reason of professional attainments to carry on this work. Let us encourage the ambitions and hopes of these young members, and teach them to know the Society will reward their allegiance by bestowing on them their full share of its honors.

Since our last meeting there have been two events, which, in their nature, as affecting the interest of this Society, demand our attention. I refer to the organization and convention of the Seaboard and Tri-State Medical Societies, the former consisting of a membership of the doctors of the Tide Water Section of Virginia and North Carolina and the latter of members of the Virginia, North and South Carolina Medical Societies. These matters you will have to consider, and decide what your attitude and relations shall be toward these bodies. To a certain extent they are offshoots from this Society. The question that confronts you mainly is, will they, and in what way, affect your interest and growth. This question seems to my mind an easy one to answer. I am fully satisfied that they will seriously injure this Society, and the reasons are plain enough.

They must, in a measure, depend upon the profession for their membership and support. This, our Society, is largely made up of country doctors. The average doctor cannot pull away from his business more than once in any year to attend a Society Meeting, even if he could afford the expense. If he belonged to all of these Societies, he has a divided interest, and the chances are strong that he would adhere the closer to the Society that to the greatest degree furthered his aims or gratified his ambitions.

If there are to be two or three society meetings during the year in North Carolina, it is but natural that any member of either Society, will attend the most convenient. The exigencies of convenience are more often

followed than the dictates of loyalty. The members that attend these new organizations will hardly be induced to attend the State Society. The officers of these new bodies will strive to make their meetings successful. Recent converts are almost the most zealous. I think we will make a grave error, and one not easily remedied, to encourage any organizations that must tend to cause a division of professional interests and lessen that power for professional advancement which this Society has so faithfully and earnestly worked for through long years. A Society formed of material outside of North Carolina can, and will not feel the same pride and interest in professional growth, as one belonging exclusively to the State. This Society has the highest claims upon your loyalty, and cannot afford to further any interests to divide the profession.

Of the making of medical societies there is no end. If this thing goes on, Western North Carolina might unite with East Tennessee to form a Trans-Mountain Medical Society, and the middle section of the State might also organize a Central Medical Association. All of these would leave us with a name only. I most earnestly submit that there is ample room in the State Medical Society for the entire profession of the State. It is only to be regretted there are not officers enough to go around at every meeting.

If any of you have ambitions beyond the State limits, the arms of the A. M. A. are wide open to receive you, and will give you every opportunity to gratify them; and its journal stands ready to print and disseminate your papers. This seems to me encouragement enough to broaden out medically beyond State lines so to speak. So let us enter a solemn resolution here to encourage no others in conflict with its interests. The Tri-State has incorporated in its by-laws a provision that membership in one of the State societies shall be a pre-requisite to membership in that body. It judiciously halts there. If the provision had said that continuous membership it might have been more plausible.

It has been my intention for several years to bring to your attention a matter which I consider worthy of the most careful consideration. The occasion seems now ripe for it, the membership being sufficiently large to properly maintain it. We are constantly reminded of the fact that doctors are not business like in their methods. Their time is taken up with other thoughts than of money getting. They lay up little in this world, but immense treasures in heaven, where they may be of service to them in the hereafter, but can surely be of no earthly use to their wives and children who were dependent upon them for food and raiment, and also for their social position in the community. It is no matter of hearsay, but of direct personal knowledge that in many instances in the house of the dead doctor there was not enough ready cash to give him a decent burial, while there was a small fortune in unpaid and non-collectable accounts on his books. This is a sad commentary, and if any plan can be devised by which the families of our dead members can be benefitted, it is a consummation devoutly to be sought for. If I can succeed in pointing out a way I shall feel that my mission has

not been in vain. Whatever has been accomplished by other medical societies, surely you can do, also. I learn from the *Polyclinic* that the New York physicians Mutual Aid Association was organized thirty years ago. That journal says, "The record of success attained by a movement originating primarily as a philanthropic charity is most remarkable. When first established in 1868 the object was to afford aid to worthy medical men in circumstances of need, and to assist financially the widow, if, as is only too often the case, she should be left destitute. From such a beginning with a membership of less than twenty and an insurance feature rarely exceeding an amount barely sufficient to afford a decent burial, an association has developed numbering 1,450 physicians, and paying a fixed sum of \$1,000 insurance, within a maximum period of five days after death, the cost of such insurance being less than \$18 per thousand. This record embodies a suggestive lesson to other communities. A thousand dollars in cash is a very desirable heritage, especially in country communities. There is no good reason why every State society in the Union could not either alone or in conjunction with neighboring States organize and maintain successfully such an institution.

Almost as long as I can remember anything medical, my grand "Old Master," Prof. Gross, whose name I always speak with reverence, was trying to introduce this feature in the Philadelphia Medical Society. The members of the Southern Express Co., and Brotherhood of Locomotive Engineers have had this feature in successful operation for years. Why should we not have? I hope you can formulate and adopt a plan to carry out these suggestions.

Last year at our Convention there was some discussion as to the propriety of establishing reciprocal relation between the North Carolina and Virginia examining boards. No definite conclusion was reached as to any method to obtain this end. For many reasons I have long thought there should be an interchange of licenses between these boards. I now propose a committee of conference between the boards and let this committee settle upon a modified plan of examination for licentiates of one board applying to the other. North Carolina board has discretionary authority as to the method and scope of examination; and it is probable that the Virginia board is empowered with some latitude.

There are quite a number of our members, who in recent years, by reason of their appointments have become interested in railway surgery. This branch of surgery seems now as distinctive as any other, and certain journals devote to it a considerable portion of their space. I would suggest for your consideration the creation of a new section to be styled, "The Section on Railway Surgery." The chairman of such a section can introduce many matters of interest in surgery as well as in medical jurisprudence, I would also recommend the establishment of a section in Pædiatrics. These matters are in keeping with the trend of medical thought and I believe deserve your consideration. I shall trust, gentlemen to your kind patience to help me perform the duties of your presiding officer.

The Practice of Medicine.

ANNUAL ORATION, BY DR. H. S. LOTT, Salem, N. C.

North Carolina Medical Society Meeting, Asheville, N. C., May 30th, June 2nd, 1899.

GENTLEMEN of the North Carolina Medical Society, I thank you for this honor, the pleasure of it was only equaled by the surprise.

Ladies and gentlemen, citizens and guests of Asheville, I thank you for your presence, and for the privilege of standing before you, and trust that you may be in some measure repaid for the coming.

I fear to attempt to offer you anything new, lest, like the clown in the circus, I get kicked out, (I tried that down at Charlotte); I cannot offer you anything original, for there's nothing original in me, except "original sin," but the practice of medicine like the story of love, is ever new, ever near to our hearts, and of equal interest to both profession and laity.

The work is begun while attending lectures, for as the adult is but the grown-up child, so the practitioner of medicine is but the grown-up student. The college days are the formative days; all is new, and strange, and wonderful; and as the infant brain gradually awakens to the realities and the magnitude of life, and of living, so the student of medicine, as he begins to comprehend the elementary and fundamental teachings of anatomy, physiology and chemistry, the study that forms the base of, as it points the way to, the complete structure in process of erection, he awakens also to the magnitude of his task, and lifting his eyes to the future, can see on its misty horizon the first, faint rays of the dawn of a life of usefulness and of science.

The life of the student of medicine is, I take it, much like the life of the student in other branches of education; he may work much, or shirk much, as the trend of his mind goes; and yet while the personality of the genus student may be the same, in the studies there is a difference. It is not cold blooded theoretical deductions, figured out on blackboards, which constitute the day's work and the night's study of the student of medicine, but nature's masterpiece, the human organism, the wonder of which, never ceases and is never fathomed, from its beginning, in infinitesimal protoplasmic elements, to its completion in the anatomically perfect human being; endowed with life, and intellect, and soul. During each day of his work the student of medicine, if he possess the qualities essential to the successful practitioner, awakens more fully to a realization of the fact that it is vital elements, flesh and bone, and blood and nerves with which his life-work has to deal. The lecture room is no longer tedious, but each hour, and each lecture brings fresh food for thought, and new problems, relative to health and disease, for individual study and solution.

The chemical laboratory, which at first bewilders with its multiplicity of uncouth implements, becomes the vantage ground on which invisible elements meet, to be tuned and fashioned by human skill into intelligible shape, and applied to the comfort and well being of human lives.

The dissecting hall, with its ghastly array of gaunt cadavers, entered at first with dread akin to loathing, looses its horror, which has followed us even in our dreams, and becomes possessed of a fascination which can be no more resisted than defined. There is no death there, and though at work among the ashes, each ember is fanned into life by imagination's healthful glow, and in seeking the source, and tracing the course, of muscle, artery and nerve; and in the minute dissection of vital organs, the wonder is that the vital spark is gone, and our subject no longer endowed with the power to think, and feel, and suffer.

The clinic is the student's rest time ; when under the wise and kindly guidance of the teacher, the tension of theoretical study is relaxed, and he comes in touch with the patient, to "try his wings" both at fathoming human ills, and reducing the science of medicine to the art of healing.

Thus the life of the student of medicine, while full of work, is also full of pleasure, that pleasure afforded by the earnest pursuance of an accepted life work ; and if the mettle of the man rings true, the day on which he receives his diploma, will find him well equipped to enter the ranks of his profession.

The ranks are always full, but they are likewise always ready to welcome the beginner, and extend to him the right hand of good-fellowship ; and I believe that it is best for the recent graduate to go to work in the general practice, at least until he has developed his tendencies. I remember the time when I was trying to decide between going to work, and going to seek further instruction, (I had just about enough money to buy a horse, that is a small horse,) I asked the advice of my much beloved teacher, Dr. Joseph A. Eve, and after having discussed the various phases of the question, his opinion was given in these words, "Go to work and study, going to Europe has made more doctors fools, than it has ever made fools doctors." The remark, strengthened by the purity of the man who made it, impressed me much ; therein lay a distinction between substance and shadow. In the practice at the bedside, and furthermore at the bedside of the patient who has applied to us for help, and for whom we feel morally responsible, the best clinical teaching is obtained. When we get a diploma we are just fitted to study intelligently. The man who feels that when he has graduated his need for study has passed, had better turn to the plow, or the wood saw, or indeed any other honest calling ; 'twere better far, both for his patient, his profession and himself.

In selecting a location, he is a very fortunate man who finds a place where he will be content to begin and finish his life work. The man who is restless, and impatient for quick preferment in medicine or surgery, and moves from place to place to get it, most often defeats his own aim, and lessens his chances of eventual success. The farmer who plows the ground, and runs the furrow in one field, and leaving it, drops the grain in another, reaps a short harvest. Like Rome, professional character and reputation are not built in a day ; but they come, with steps as sure as they are lagging, to the

man who is worthy of the reward. And furthermore they come hand in hand, and are both essential factors to success. Professional reputation may be gained through native skill and mental talent, professional character is only gained by purity of life and motive. Reputation is the binding, character is the book ; reputation may bring the patients, character holds them.

The first years, the waiting time, constitute the most trying period of a professional career. They are filled with trials, and temptations, and disappointments. The men on whom fortune smiles early bringing to them a living practice, without the struggle, through either the descent of a father's mantle to their shoulders, family influence, or other of her fickle freaks, are among the favored few. To the large majority it comes through years of patient work and patient waiting.

In starting out in practice the chafing against the bit is hard to overcome. To sit quietly in the office waiting for calls, with very few dollars in the pocket, and expense going on in spite ; to see the busy doctors on their rounds, doing the work, while we sit idle ; is a trial well worth living through : and if bravely borne, yields fruit well worth the waiting. The time is not wasted if properly spent, and the discipline is just what we need. Self-possession, faith in his calling, and faith in his own resources, are most essential to the practitioner of medicine. The man who possesses them has ample opportunities for their cultivation during this period, and will be prepared to meet successfully the first emergency that arises. The man who possesses them not, will be found wanting in the waiting period, and wanting in the work.

Temptations come from every side, and are not confined to those which come through a native fondness for society and its dissipations ; for while these are alluring, and may lead astray, they are most often refining and elevating. The true physician is the doctor every where and every when, always ready with brain and heart and hand ; nor does his calling debar him from social recreation.

The greatest temptation from that source, and the one, if yielded to, most damning and destructive to the physician's moral character and professional honor, seeks him in the quiet of his office : with gloved hand and gold-lined palm, and pleading tear-stained eyes mayhap ; "just a little medicine Doctor ! and a little 'treatment,' and please remember that your fee is no consideration." Will he yield, and bear the scar of professional dishonor throughout the balance of his life ? The need is urgent, maybe, office rent is due, and the money is at hand just for the reaching ; and it is so simple, and really seems to be an act of humanity. Ah yes ! I know the temptation : but if he is a true man, and a true physician, with the honor of his profession as dear to him as his own, he will say no ! and "the fee" will, indeed, be no consideration.

Such, and lesser ones, constitute the temptations without. Within the pale of the profession there are many, living because countenanced, and

equally ruinous to the physician: if not to his honor to his dignity, and to the scientific pursuance of the practice of his art.

The cry of the medicine vender is not confined to the streets; he enters the physician's office with much elegance and suavity; appaeled in the latest style, both in person and in speech; and at all ages, from the beardless recruit, who has just shed his pinafores, to the dignified veteran, who had "such an extensive practice" that he must needs leave it, forsooth! and go to traveling in the interest of a "pharmaceutical establishment." And—"my dear doctor, we make the best, the very best, the products of no other house can compare with those we offer you. We visit the physicians only, and introduce our elegant preparations strictly on their merits, and only through the medical profession. And this, our special and latest product, (full formula on the label,) is working wonders. Where it is known the profession simply cannot do without it; and it cures, always. These samples I will leave with you, and to more you are welcome just for the asking. When prescribing doctor, there is so much fraud, kindly specify our goods, and the results are certain." The recitation is well taught, and beautifully rendered, most pathetic in fact. And on leaving, "your full address doctor, Ah! thank you, this will bring you, each month, our publication, with exhaustive reports, from the most prominent men, on the successful use of our preparations." "And remember please, that we will gladly furnish you with literature and samples at any time." And they are furnished, and their pamphlets form the text book, and their nostrums the medicinal agents of numbers of practitioners. It is so much easier to let some one else do some one's thinking; and to use a remedy that is known to be the right one, for it says so on the label. And then they are so safe too, nicely put up in little boxes; and the little pamphlet tells you just when to give No. 1, and just when to give No. 2, and all we have to do is to look at the numbers, never mind about the patient, the little pamphlet says that hundreds and hundreds of cases have been treated by them, with never the loss of one.

Now, in order to find a very large number of the authors of these valuable reports, you would have to conduct your search with a lantern in the daytime. And the remedies lauded, most often under mysterious and high sounding names, are simply standard drugs, that are used by all intelligent physicians each day in their practice. Let the pharmacist devote his energies to the securing of pure and unadulterated drugs, and not assume the office of clinician and teacher of therapeutics. The instrument maker to the making of good instruments, and leave their use, and the "post-operative sequelæ" to the surgeon.

Medical literature offers a maze through which the young practitioner passes in bewilderment; and the only wonder is, that he does not stray further and more often. Just as untrammelled freedom of the press publishes crime and immorality, and sows broadcast their seed in brains and hearts found fertile for the growing; so do unrepressed and mongrel medical journals teach and foster unsound principles and practice of medicine. The ideal,

medical journal, as the ideal physician, should be free from advertisements, and free, also, from solicitations for patronage.

The want of today is not for literature on subjects medical and surgical, of that there is an abundance ; but for the power to discriminate between good and bad, the ring of the false, and the ring of the true. Like all human effort, a large mass of it sinks into restful oblivion. Just here and there, untarnished and untattered by time's progress, stand out in bold relief the work and thoughts of men endowed by nature with the power to read her lines correctly, and follow close their teaching. The best literature that we have today, most sound in pathology, accurate in diagnosis and helpful in treatment, is found in the works of the older writers.

Men with their working time behind them, and a goodly number of well rounded and well ripened years of experience and observation from which to draw.

Systems of medicine, compiled from many sources and many authors, and shaped into a number of immense volumes, make quite a formidable array on the shelves of a bookcase, and are quite profitable, no doubt, to the compiler and the publisher; but I question much their value to either student or patient.

Such works, together with most enticing terms of purchase, are presented to the physicians throughout the country by the well tutored representatives of lay publishing houses. Just think of it ! Come all the way down from the metropolis, bearing all the expense and distress of travel, for no profit—mark you—but solely to offer to benighted doctors the “very latest work” by some embryonic professor, that their house is “pushing.” Ask one of these gentlemen for a standard work, by a master in medicine or surgery, and his face is a study in its blending of sympathy and pity; “my dear doctor ! we don't carry that, it is ‘out of date,’ the works that I offer you are the latest. And the engraving doctor, see the number of fine engravings.”

Now the surgical picture book, while having a sphere of usefulness, portrays rather the financial resources of a wealthy corporation, than the native skill, wisdom, and conscience, the three essentials, of the surgeon. These are best portrayed either through personal contact, or in close study of the volumes which set forth the spirit of the man, in the writings of the life work.

However trying it may be to the physician's mental and moral fiber, the waiting time passes and the calls begin to come. The first call marks a crisis which is ever remembered. It is the culmination of hope deferred, the beginning of the end. It may be to the mansion, but the chances are very great that it will be to the humble cabin, and in either case the issue is of vital import.

With the care and precision which mark the well trained student, and guided by the lights of today which give a knowledge and understanding of obscure pathological conditions, the patient is examined and a diagnosis made of appendicitis.

The trouble has become quite the fashion, and 'tis rather good fortune to have been called to a case, if it can be brought to a happy termination. The patient is suffering, the family anxious, and the skill, wisdom and ability in general of the young attendant much shadowed by doubt. What course of treatment is it best to pursue? The teaching and literature of today, which have been studied so well, present a mottled and conflicting mass, seemingly at war with itself, and failing now to guide straight and true.

At one elbow stands Prof. Salts, with a string of extras to his name as long as your arm, and shaped into a nice little pyramid underneath, who in his latest writing, says that appendicitis is not a surgical disease at all; but is due to a *germ* which makes its home in this little intestinal prolongation and its immediate neighborhood; and if the doings and feeding of the possessor of its habitat incur its displeasure by deranging its medium of existence, much trouble ensues, and the culprit is in danger of capital punishment; which, however, may always be averted by medicinal treatment, tending to expel this ill-conditioned and ill-tempered inhabitant, and create a proper medium of existence for its successor. Surgical interference is practically criminal, and never indicated. And then a long "series" of cases are cited in which the diagnosis was sure, all were treated with salts and calomel, and all got well.

At the other elbow stands Prof. Lancet, with an equal number of attachments, who says that all cases of appendicitis are surgical cases; delay is dangerous, aye even criminal, and should be subjected to operative interference early. The exciting cause, in most cases, is a foreign body, having been introduced either by way of the stomach, or formed within the gut as an enterolith, and its removal, together with the inflamed and often sloughing appendix through an abdominal incision, the only safe or rational procedure. Why, quite recently there appeared in a medical journal, an elaborate article, prepared no doubt, by a member of the firm of Lancet, Duck Pants & Co., strongly urging the removal of the appendix vermiformis in early infancy; and recommending to its securance the establishment of a law like that enforcing vaccination.

Now in the face of such conflicting testimony, from presumably authoritative sources, the position of the man who has not years of experience and observation from which to draw, may be much embarrassed. That co-workers in the field are so widely at variance is most unfortunate. The fundamental laws underlying and governing medical and surgical science, are as fixed as were those of the Medes and Persians, cleaving close to nature's lines. Not wasting precious time in vague theories but striving to aid nature's efforts at throwing off disease, while they also strive to solve her mysteries. 'Tis the expounders of the law who vacillate, and not the law. That "doctors differ" is a much favored saying among the people, and often reflects discredit upon the science of medicine, when the real fault lies in the want of equal powers of observation, and equal training of its representatives.

Finding himself thus at sea, between the two extremes of authoritative opinion, which keep each shore in restless tumult through the splash of their discussion ; the man of resource, sustained by native skill and native wisdom, drops into the strong, deep middle current, which traces its source to the masters in medicine and surgery, and pursues its way from century to century, unswerving and unchanging, and bearing on its broad and mighty bosom the fixed and faithful laws which contribute to the prolonging of human life, and the relief of human suffering.

Thus guided the man of doubt becomes the man of action. The first care is for the patient, whose vitality and environments are taken into account, and the course of treatment advised which promises best. Each case is a law unto itself, and no fixed rules can be established or followed.

A simple catarrhal appendicitis, or as correctly speaking, the perityphlitis of Gross, involving the appendicular region, is often tided over by rest, salines and proper diet without the need for alarm. Or, if on the other hand, the case presents the type so perfectly pictured by Dr. Hunter McGuire, with a probable foreign body, the formation of pus abscess, with a likelihood of perforation ; then to open the abdomen nearest the seat of inflammation, let out the offending matter and drain the cavity, is beyond question the right course to be pursued ; and,

"Do thy duty, that is best ;
Leave unto thy God the rest."

Such issues, with such problems for solution, will present constantly in the work ; and to think and act promptly is most apt both to save the patient, and hold the confidence of the people.

The case terminates favorably, the patient gets well, and the diagnostic skill and successful treatment of the physician are much talked and lauded by the family and neighbors. Or, wait ! the patient does not get well ; the life line has been crossed, and the case terminates fatally. Now, the skill in diagnosis has been equally great, the course of treatment adopted has been equally correct, and yet the issue is most distressing to all concerned ; and not least so to the physician. He has been guided by his lights, and done his best, and yet the shadow of a failure rests upon him. Each step in diagnosis and in treatment is reviewed, and while found to be abreast of the best teaching of today, and to have just suited that particular case, he questions their wisdom ; and to the disappointment and discouragement are added the pain of feeling that possibly some other course would have been best pursued, and might have saved the patient. Do the people know what the doctor suffers in the loss of a patient ? They are his judge, they make or mar his future. A few will censure his boldness, many will question his skill and ability, but the large and ruling number will weigh the matter justly. Into the balance with reputed zeal and professional ability the character of the man is dropped ; and if sound and pure, the swing is in his favor. Failure, while cruel, is oftentimes a better teacher than success. The doubt of self with its questioning and study, are fertile paths to plains of broader knowledge.

As to adverse criticisms, the doctor gets his share of them. No matter how earnest his work, or how pure his motives : and

“Let any man once show the world that he feels
Afraid of its bark, and 'twill fly at his heels ;
Let him fearlessly face it, 'twill leave him alone ;
But 'twill fawn at his feet if he flings it a bone.”

Thus to pursue and to comprehend the practice of medicine, in all the breadth and fullness of its scope, the physician should be a man of power, mental, moral, and physical.

Mental ability, with conceptions and ready sympathies, fits a man to hold position in the foremost ranks of his profession. The case pictured is but a drop from the mighty ocean. Throughout the working time, like problems, medical and surgical, for individual solution, are coming up each day and hour. In every branch of the work, and the general practitioner must have a knowledge of all, theorists form a large and also a valuable school, in that their searchings and controversies often lead to truth. But theory must be reduced to science, the kernel must be freed from its shell, before it becomes the mighty oak ; and upon the general practitioner, mostly develops this task.

The advances of today, along all lines of our profession, are most wonderful. The microbe hunter, crying germs! germs! and waving aloft as he runs his barber's banner, fresh-dipped from the many-hued solutions, has done a great and lasting work; *he has found the germs, and can only see his find*: but he has taught us to be clean; and if to our minds it is still a question whether the germ is a *cause* or a *result* of its medium of existence, having gained the house-top, we should not despise the ladder which has put us there.

To preach and practice cleanliness belongs equally to all branches of our science, and while through its medium the advances in surgery, and especially in abdominal surgery attract most admiration and wonderment, the field for teaching and guidance to the same end is equally broad in the general practice.

Tuberculosis, Syphilis and Cancer, which in their various manifestations constitute the greatest scourges to humanity, have their origin in filth, either of person or environment; and whether the germ exists before or after the establishment of its medium, the preventive lies in cleanliness.

The same principal underlies the latest and most scientific treatment of all diseases with which we have to cope. In autointoxication, with all that the term implies, we recognize the chief source of danger to the vitality of the patient, and in stimulating the emunctories, and keeping up nutrition we also recognize the best means of ridding the system of the accumulating poisons, and of preserving the vital spark.

It is just here that the serum therapist, heralding his theoretical antidote, comes into clash with the true scientist; the man who does not take to each new path that offers, because it is bright, and easy, and diverting. Nor

will he either, without well knowing the reason, inflict upon an organism laboring under a self-engendered poison, which taxes to its fullest the resisting and eliminating power, an additional one of even greater and more deadly intensity.

The electrician subjects both himself and a most valuable therapeutic agent, to the criticism and ridicule of intelligent surgeons, by reporting a "long series" of cases in which, under the magic influence of the current, huge fibroids have melted like snow 'neath the summer's sun.

Such aberrations, gentlemen, are most innocent in origin, and not intended to misguide; but are simply *prima facie* evidence of a want of equal training, and of equal powers of observation in the authors of their being. And furthermore, they lend much to establish the fact that the true scientist is not the isolated and pedestalled myth that current opinion mostly holds, but a living reality, in and out among the people every day. The man with the eye to see and the wit to grasp nature's processes, bearing in mind the elements essential to life; and possessing the wisdom that tells him when to aid, and when to leave her in her doings.

In his moral character the physician forges the link that binds together the profession and the people. Strip the man of moral strength and moral purity, and though he be possessed of the highest degree of skill and wisdom, the picture has lost its glow, and becomes one from which both people and profession shrink. The duties of the physician are such, and through them he is so intimately associated with the most sacred ties of heart and home, that his personality becomes a household factor. His help and counsel are sought and trusted; and even in times of health, or trifling ills, "what the doctor thinks" is an element of no small moment in deciding questions both of duty and of pleasure.

Throughout prolonged ordeals of trying sickness, when hearts and brains of friends and relatives are racked with pain and apprehension, the family physician becomes the stay and guide of all. His coming is ever welcome and his presence gives strength and hope.

In daily contact with patients the moral fibre of the physician is stoutly tested. There is a strong tendency on the part of some people, who constitute a fair per cent. of the doctor's clientele, to make a diagnosis of their ailment, and even to formulate a line of treatment for the same, and then apply for professional endorsement. Now, to cater to their demands would be most culpable, while to find and meet their needs, both wisely and kindly, offers a problem which is at times most difficult.

In the ranks of the profession it is not science, but moral purity of life and motive that makes the front invincible. The paths of earnest and faithful workers are often widely divergent, and their deductions widely at variance, but each is striving for the same end, and from each is culled a grain of truth, which dropped into the store house ready garnered, adds to the richness from which all may draw, and also adds a link to the ever-lengthening and ever-strengthening chain of professional love and unity.

In personal contact with fellow physicians, each man has a moral influence. We seldom come in touch with a man from whom we do not learn something, either to cultivate or avoid. To our seniors we look up with admiration akin to reverence. They have what we want, the skill, the wisdom, and—the practice, and it has been my experience to find them ever ready to lend a helping hand, and give the word of counsel and guidance of which we often stand in need. 'Tis not so much the patients that they send us, as the "word in season" dropped here and there in soil rich of their tilling, that lets the mantle gently down to the shoulders of their successor as they relinquish the work, and brings with it the confidence and patronage of the people.

Physical strength and powers of endurance, are to the physician as paint and canvas to the artist's dream. Without them the vision lives in eye and mem'ry only, nor could the world either share, or be bettered by its power and beauty. With them, from tenderest hue to full and glowing color, the canvas portrays the artist's inspiration. 'Tis a life of doing, not of saying; and in the physical man lies the foundation to the superstructure. Strength, as of a man; and gentleness, like unto a woman are attributed peculiarly essential to the physician. Each fibre of nerve and muscle is trained and adopted to its work; ever under control, at command of the brain's supreme direction; and always with strength to spare. With the gentleness of a woman, the new born babe is washed and dressed, and laid in its mother's arms. Or, as the chance may be, with the finest co-ordination and adaptation of muscular movement, the most trying surgical operation is done.

The loss of sleep, (burning the candle at both ends,) the hurried meals, the long hard drives through rain, and mud, and snow, and—the collecting! all tax the doctor's physical strength and powers of endurance to their utmost. There is no hour that he may call his own; all time and skill, all power of brain, and heart and hand, belong to his profession and his patients.

"Therefore though few may praise, or help, or heed us,
Let us work on with head, or heart, or hand,
For that we know the future ages need us,
And we must help our time to take its stand."

And the patients love "The Doctor," and when the task is done, and the life is spent, from each home comes the sorrowing sigh:

"But Oh for the touch of a vanished hand
And the sound of a voice that is still."

MESSRS. FINGER & ANTHONY, Salisbury, N. C. DEAR SIRs:—Such plating of surgical instruments as you have done for me has been entirely satisfactory, and I find it a convenience to have this work done at home and not to send it North.

Asheville, N. C.

C. L. MINOR, M. D.

Antiseptic Midwifery.

BY W. W. MCKENZIE, Salisbury, N. C.

Read before the North Carolina Medical Society, Asheville, N. C., May 30, June 2, 1899.

IT has long since been ascertained that puerperal septicaemia is due to a poison which enters the system through the genital tract as such, or is produced there by a substance coming in from without.

It is also a settled fact that in almost, if not in all cases, by the local use of certain measures and drugs we can prevent puerperal septicaemia. It can furthermore be said that the producers of this poison are certain microscopical fungi, which have been found on the wounds of the genital canal, in the blood circulating in the veins of the living patient and after death, in almost all the great cavities, exudations, &c. The most dangerous of these, it is said by those who should know, are the round micrococci in chain-like groupings, but beside them are found single and double round micrococci and the common rod-shaped bacteria of putrefaction. Chains of micrococci similar to those of puerperal septicaemia are found in erysipelas, scarlet fever, diphtheria and pyemia, and so far it has not been possible to differentiate them in these clinically different diseases.

The poison causing puerperal septicaemia may be derived from different sources,—such as patients suffering from the same affection; patients suffering from suppuration or decomposition of tissue; patients suffering from zymotic diseases; and from putrefying substances.

The contagiousness of puerperal infection is universally admitted. The only mooted point is whether it is essential that the microbes be carried from one patient to another on solid objects or whether they may float through the air.

That the source of puerperal infection may be suppuration was pointed out by Semmelweis as early as 1847. Students who had examined a patient with a cancerous ulcer of the uterus caused puerperal fever in and death to fourteen women, and in this country the case of Dr. Rutter, of Philadelphia, who suffered from Ozena and had 45 cases of puerperal septicaemia in his own practice, in one year (1843) is one of the most remarkable instances of this kind. It is easy to understand now how by touching his nose with his fingers, Dr. Rutter, brought staphylococci and streptococci into the vagina or the uterus of his unfortunate patients. A French physician who had delivered eight hundred women without the slightest infection, was seized with suppurative adenitis, for which he wore a drainage tube. Within three weeks he had three cases of puerperal septicaemia. A dentist, Dr. Redley, called attention to diseased teeth in doctors and nurses as a possible source of puerperal infection.

All inflammatory puerperal diseases are due to infection such as cellulitis, metritis and local peritonitis, the proof of which is, that they almost disappear and entirely change character, when the antiseptic occlusion treatment

is used. If no poison from without found its way into the body of the pregnant or puerperal women, few of them would be sick after delivery. In the vast majority of cases the infection takes place by absorption through the wounds of the genital canal, but not exclusively. In most cases the poison is brought into direct contact with the genitals by the hands of the doctors midwives or nurses; by instruments, sponges, rags, cotton, oakum or other substances; but it can quite as well be suspended in the air of the rooms. Dupaul reported the case of a pupil midwife, who, while washing the genitals of a patient affected with puerperal infection, felt an unpleasant sensation, was taken sick in the evening, and died on the third day with all the symptoms of the most characteristic puerperal fever. The diagnosis of puerperal fever was confirmed by the autopsy; she was found also to be a virgin and not menstruating. The natural inference is that she inhaled through the lungs the poison that caused her death. Such a case may be unique, but it ought, nevertheless, to make us a little reserved in our expression about the way the poison of the puerperal septicaemia enters the system.

The infection will of course be most likely to take place during the manipulation of delivery, but it may likewise occur before and after. Thus we sometimes, although rarely, find fever before delivery, and, on the other hand, septicaemia may develop at a period, when, as a rule all danger is passed.

The mortality from puerperal fever before the use of antiseptics in midwifery, was simply enormous—rate being about ten per cent., but now since the adoption of proper antiseptic measures it is only $\frac{1}{2}$ of 1 per cent. Before the introduction of antiseptic measures puerperal septicaemia used to reign in so called epidemics. With our present knowledge we can, as Fritsch aptly puts it, “as little speak of an epidemic of puerperal fever as of an epidemic of gun-shot wounds the day after a battle.”

I will be brief in indicating the historical developments of antiseptic midwifery. The first who understood the septic nature of puerperal fever, and instituted an antiseptic prophylaxis (by means of chloride) was Semmelweis, of Vienna, in 1847. Still our present highly developed antiseptics is not derived in a direct line from him. It was first when Lister, building on the researches of Pasteur, has created antiseptic surgery (1866) that Stadfeld, (1870) tried to adapt his treatment with carbolic acid to midwifery, and he was soon followed by Bischoff, of Basel, and Fritsch, of Halle. From that time the use of carbolic acid in obstetric practice spread rapidly over Europe and America. But another period was inaugurated when Tarnier introduced bichloride of mercury, which he recommended in a paper read before the International Medical Congress in London in 1881, and this treatment received new impulse thro' the experiment of Koch, of Berlin, and the introduction of it into surgery by Schede, of Hamburg.

The bichloride of mercury, as a preventive and curative agent, was then introduced (1883) in many lying in hospitals. In America it was first intro-

duced by Garriges in the New York Maternity Hospital on the first day of October, 1883.

This is the chief drug used by obstetricians, but some still prefer carbolic acid, while others use nothing. The latter consequently are continually furnishing the undertakers with plenty of material. I know of a practitioner who during the last six months lost five cases; two the same day, from puerperal fever. This practitioner pretended to use antiseptics, but he didn't use them right. There is a right way and a very wrong way to do all things. In this case the wrong way was the easiest, and seems to have been used to perfection.

I know of still another physician who has lost four or five cases in succession. I am glad to say that neither of the physicians live in my town.

Insurance reports show that of all deaths in women between the ages of nineteen and twenty-nine more than eighteen per cent., and between twenty-nine and thirty-nine, thirteen per cent. are due to puerperal causes. From sixty-five to seventy, five per cent. are attributable to sepsis. It is fair to assume that these statistics have to do almost entirely with a class who are delivered outside of hospitals. Thousands of invalid mothers to-day owe their impaired health to the milder grade of sepsis in childbed. Now, are we going to allow this to continue when we can prevent it? Certainly not. There are a number of physicians to-day, who, when you mention antiseptics and asepsis, turn their noses up with disgust and say, "Nonsense, there is nothing in it." But I am glad to be able to say that the majority of physicians do use antiseptic measures, consequently we rarely hear of a case of puerperal septicaemia. Only one of my patients ever suffered with this terrible disease, and she was one of the contrary kind. There was a slight laceration and she would not let me repair it, nor allow the antiseptic douches to be used, so she died very promptly on the ninth day after confinement.

Coming now to the preventive treatment I will confine my remarks to private practice, as we of course cannot do everything as neatly, etc., as they can in hospitals and our patients have to be treated at their homes. But we can use the same antiseptic precaution if not as neatly, as in hospitals. In well-to-do families we should choose a large, airy, sunny room, and as far as possible from the water closet. In the dwellings of the poor you will have to do the best you can. Select the best room in the house and have the best ventilation possible. In my obstetric bag I always have a jar of green soap, bichloride of mercury tablets, carbolic acid, a sterilized apron and Kelly pad (also previously sterilized) nail brush, fountain syringe, forceps, scissors, sutures, needles, ergot and chloroform. Upon arriving at my patient's house I proceed at once to scrub my hands and arms well, having my sleeves rolled up above the elbow and then bathe them in bichloride of mercury. (२०००) I have the nurse to do the same. Next I direct the nurse to give her an enema, then have her to bathe all parts liable to be touched during delivery, with bichloride solution. I then give her a vaginal douche whenever patient has leucorrhœa. I make as few examinations as possible, and always before

and after each examination I bathe my hands in a $\frac{1}{2000}$ Sol. bichloride of mercury which I always have in a bowl or basin near me. I have the Kelly pad placed under patient after the nurse has bathed her, as I have before mentioned.

The placenta should be expelled by Crede method when possible, so as to avoid introducing the hand into uterus. When the placenta is retained be careful to thoroughly disinfect hand and arm immediately before attempting to remove it. Be sure to remove every particle of after-birth, since if any remains puerperal septicaemia will develop immediately. Whenever called to a case of labor after attending a case of sepsis such as erysipelas, puerperal fever, etc., besides using the ordinary antiseptic measures you should use the permanganate method. By it the hands, it is claimed, may be rendered practically sterile to culture tests. It is as follows: first the nails are cut short and carefully cleaned; second the hands and forearm are scrubbed for three minutes with soap and water. The brush before using is sterilized by steam and the water, which is as hot as can be borne, is frequently changed. The soap is rinsed off with plain water; third the hands are next immersed into a warm solution of permanganate of potassium and are scrubbed with a sterilized swab. Boiled water should be used for the solution, which should be saturated; fourth, the hands are next held in a warm saturated solution of oxalic acid in boiled water until permanganate stain is entirely removed. Fifth, after rinsing in sterilized water the hands are immersed for two minutes in a 1-500 mercuric chlor. sol. After this method any physician can safely attend labor cases.

After delivery if there is a laceration repair it immediately, using prepared silk, silk worm gut or silver wire, as they are less apt to cause suppuration along the needle tract. Use catgut for buried sutures. Sutures should be removed on eighth or ninth day. After delivery you must again thoroughly disinfect your hands and arms, remove placenta and disinfect again as before, then have soiled parts of body thoroughly cleaned at once with antiseptic solution; her linen if necessary should be changed and all blood stained articles removed from bed. Bathe genitals thoroughly with antiseptic solution, using a piece of sterilized gauze or toweling. After cleansing, the vulva is covered with an antiseptic dressing. They are not employed as occlusion dressing. Their object is rather to promote cleanliness of the external parts, thus limiting the danger of infecting the passage from the proximity of the decomposing discharges. Should catheterization be required after labor, care will obviously be needed to prevent infection of the vaginal wounds and abrasions, but this is not all—Cystitis frequently results from infectious materials being carried into the bladder during catheterization. Pyelitis may result by the extension of the septic process from the vesical mucosa through the uretus.

To prevent this the strictest asepsis must therefore be observed in catheterizing the bladder. Instruments should be boiled in water for five (5) minutes immediately before using, and this is possible even with soft rubber

catheters without material injury to the instrument. Extreme care must be taken to prevent urine from trickling down over the affected parts. After removing catheter disinfect it immediately, bathe the external genitals with 1-4000 bichloride mercury sol. (I use the glass catheter altogether, it has the advantage that it presents a perfectly smooth surface and corner, therefore, a minimum amount of urethral irritation. Boiling the instrument for five (5) minutes immediately before using renders it aseptic.)

During the lying-in period I always direct the nurse to use the vaginal douche 1-4000, twice daily, also to change vulva dressing every 3 or 4 hours, and after removing each dressing bathe the external genitals. All linen must be changed every day.

DISCUSSION.

Dr. Kent.—“I listened with pleasure and interest to the well prepared paper of Dr. McKenzie. I would be rather inclined to criticise Dr. McKenzie adversely, but in truth I find no fault with him, and must say that I heartily approve of everything that Dr. McKenzie has said. I have been practicing midwifery antiseptically I think, ever since I have been practicing medicine, which is quite a number of years, but I do it, I think, in a much simple way than Dr. McKenzie advocates, and I say with pride that so far as I know I have never had a case of puerperal septicemia where I delivered the case. In consequence of the success I have had along that line I am going to give in a few plain words my manner of managing the case so as to avoid puerperal septicemia. When I am called in I wash my hands thoroughly in a simple carbolized solution, not very strong, but strong enough, as I think, to cleanse my hands well. Then I use carbolized vaseline. I have never taken the trouble Dr. McKenzie advocates of having the patient sponged. That might be necessary in some cases, but I have not found it so, and I am inclined to think from my experience that puerperal septicemia is not a very common disease, or I might have had some of it in consequence of my not having been more thorough in my treatment. Oftentimes in the rush of human affairs, even in a small village, you do not have time to do everything that Dr. McKenzie advocates, and then you must do the best you can. After I have delivered my patient, within a few minutes I deliver the placenta. I ordinarily have her sponged then, the bed linen changed at once, and have her washed once or twice a day with a simple carbolized solution. I instruct usually that these washings should be kept up from five to eight days, depending upon the length of the discharge or evidence of any septic matter that might be there. Where I have been called to cases of puerperal septicemia I used much the same treatment, and I have been gratified with the quick falling of the temperature and the rapid improvement of the patient after I began the washing. I believe that the best of all is in cleanliness, absolute cleanliness, abundance of fresh air, and as much sunshine as you can conveniently have.

Dr. McMullin.—I am disposed to agree with Dr. Kent in his management of normal labor. My record probably has been as good as the every

day practitioner, and I have never yet found it necessary to do more than exercise ordinary cleanliness. I would like to have one point brought out, and that is with reference to vaginal douches after labor. My custom has been not to use them, and I would like to hear some expression in reference to their use in ordinary normal labor.

Dr. O'Hagan.—I am opposed to vaginal douches, and it has been established without doubt that the discharges themselves are the best antiseptics we have. The difficulty and annoyance of using vaginal douches does harm to the patient in the way of disturbing her, and I think among the most advanced and enlightened obstetricians the method is not approved. I do not think they are of value, and should condemn them.

Dr. Watson.—I cannot agree with Dr. O'Hagan about the harmfulness of vaginal douches. I think the best time to take precautions is through the vagina in the early stages. I am sure it makes the patient a great deal more comfortable. I have tried both methods, and my patients invariably call for the douches. In regard to the rare occurrence of sepsis following labor, I have not had the same experience Dr. Kent has. I feel it my duty to proceed, as this gentleman in his paper advocated to deal cautiously with every case. In regard to the use of the catheter after labor as an antiseptic protection, I do not think that is necessary. I think that vaginal douches and washing off with bichloride solution after delivery will dispense with the use of the catheter. I am opposed to intrauterine douches unless they are called for especially.

Dr. Royster.—The only point about which Dr. McKenzie has overstepped the bounds is in recommending the use of douches in nonleucorrhea cases. My practice has been not to use douches in normal labor. I believe Dr. Kent has been very lucky. I am sure if I had omitted any link in the chain of my usual precautions I would have had a case of puerperal fever on my hands. I have no record to speak from, because my experience has been too small, but it seems to me we are called upon to be just as careful in our case of midwifery as we are in surgical practice. I think that a man should use a stiff brush and plenty of soap and water and some chemical preparation afterwards. I think if that is done the rest of the conduct of antiseptics in keeping the hands clean will be very easy. I was much interested in an article by Dr. Edgar some time ago on the practical management of normal labor. He quoted statistics from Williams and others to prove that there were no germs existing normally in the lochia. I have seen many articles on the study of practical asepsis for labor, but there are very few which tell the general practitioner what he wants to know in ordinary practice. They talk about sterilized sheets and sterilized gowns and things of that kind, but they do not talk about the sterilized finger. The germs do not exist normally in the vagina. My experience has not been large enough to make any further observations, but I think we all learn that most of the trouble comes from personal contact either from the doctor or the nurse. It is not medicine.

Dr. J. W. Long.—If Dr. Herring had looked for those microbes with a microscope he probably would have found them. I am familiar to some extent with Dr. McKenzie's obstretical work, and if his method may be dominated meddlesome midwifery then it gives good results, for I know he attains excellent results. I agree with Dr. Royster that the same precautions should be taken in preparing ones hands for an obstretical case as in surgical practice. If, as most of us believe, these little microbes or bacteria may be destroyed or gotten rid of by the use of mechanical measures and antiseptic drugs, then it seems to me to be rational, to be good common sense treatment and a common sense method to scrape and wash and use antiseptics until we free our hands and the genitals from bacteria. It has, I think, been clearly shown that the septic germs have their normal habitat in the upper part of the vagina and even in the urethral canal. None are found beyond the os in a normal healthy uterus. I agree, and my practice is, when there is no leucorrhea, there should not be used any vaginal douches before labor. The gist of Dr. McKenzie's paper is that he is striving to attain asepsis, and that he is working to free his hands and the genitals from these germs, and I believe that this is the basis of all good surgery, and I believe we ought to observe an obstretical case as a surgical case, and treat it after the same general principles.

Asepsis and Antisepsis in Surgery.*

BY GOODE CHEATHAM, M. D., Henderson, N. C.

THE practice of asepsis and antisepsis is no longer a subject for argument or controversy in the surgical world. Surgery has made such rapid progress since the introduction of the "Antiseptic Method" of Sir Joseph Lister, that very nearly all opposition to asepsis and antisepsis has disappeared. It has become an integral part of the practice of the majority of surgeons all over the world, yet there are a few surgeons to-day who will operate without any antiseptic precautions whatever, while others use very little, thereby exposing their patients to infections which may prove fatal. Among some of the advances made in surgery, due to asepsis and antisepsis, may be mentioned the abdominal surgery of to-day. No surgeon would hesitate to open the abdominal cavity now, when only a few years ago it was considered almost certain death. The number of successful abdominal operations in cases of gun-shot wounds of the intestines is proof enough to justify the employment of every antiseptic precaution in all operations and wounds, for without it we are sure to have suppuration and, in many instances, septicaemia.

Reports from the last war show that a very small percentage of wounds, of American soldiers proved fatal, this was due to the rigid antiseptic methods employed. Each soldier was provided with an emergency outfit consisting of a piece of sterile gauze, a handkerchief with illustrations and

* Read before the North Carolina State Medical Society, Asheville, N. C., May 30, and June 2, 1899.

stamped instructions for bandaging every part of the body. These immediate antiseptic precautions, with the care of the surgeons in the hospitals, give American surgery a great triumph. Compound fractures have been considered among the most dangerous accidents, but now little more than simple ones, while, in amputations, the mortality rate is almost nothing.

A review of the actual status of the life-saving value of the antiseptic method certainly justifies its use under all circumstances. If the only claim that could be made for the antiseptic method was that it made the patient more comfortable, hastened the healing of wounds, or rendered an operation safer, it immediately becomes the imperative duty of every surgeon to adopt it.

Since the advent of Lister's method with its elaborately prepared dressings, its powerful germicides, and its troublesome apparatus, there has been slow, but sure tendency to simplify these methods. Simplicity, cleanliness and the weaker antiseptic solutions have gained predominance over the above method. The use of powerful germicides upon a wound surface is falling into disuse, and rightly so, for it has been proven that a wound subjected to this undue irritation does not heal as promptly, for this solution destroys the resistance and antiseptic action of the living cells, which will, if not interfered with, render the few germs inactive, which may gain entrance during an operation conducted in accordance with the improved methods of modern surgery. It will also cause undue serous exudation. There is also some danger of poisoning from the use of strong solutions of bi-chloride and carbolic acid, and also from the use of iodoform, but these cases are very rare, in fact too rare to deserve mention. The simple methods of sterilization, which give better results, are due to the practical teachings given us by the abdominal surgeons. Now the surgeon uses, after his first incision, weak bi-chloride solutions, simple boiled water, or boiled normal salt solutions, reserving his strong antiseptic solutions for cleansing sponges, tampons, etc.

Infection from the germs, which enter wounds through the medium of air, is rare, but that it may occur by this means is not in the least impossible. The most important steps to be taken to prevent infection are the careful preparation of the patient, the rendering aseptic the hands of the operator and assistants, and also the thorough sterilization of instruments, sponges, ligatures and dressings. The most approved methods of asepsis and antiseptics of to-day should be familiar to every surgeon. These methods can be found discussed in detail in any standard work on surgery.

Recently, for disinfection of instruments and dressings, Formaldehyde gas has become very popular with some of the profession.

The following are some of the experiments with Formaldehyde gas, as a means of disinfecting instruments and dressings. The apparatus used contains about six cubic feet. Using four pastilles of paraform, it was possible to render the piece of gauze that had been dipped in a pure culture of anthrax, sterile in ten minutes, but if a piece of gauze was wrapped in seven or

eight layers of gauze and this bundle enveloped in three thicknesses of foolscap paper, twenty minutes were required for sterilization. The only disadvantage noted was that on opening the box the escaping gas caused considerable irritation of the eyes of those in the room. With regard to the effect on instruments, it was found that neither the gas nor the liquid formaline had any influence whatever upon the sharpness of the instruments. For the disinfection of small instruments such as those used by ophthalmologists, otologists, laryngologists and dentists, it is by far the most convenient and speedy method. This method, probably better than any other for the work designed, carries out the principles of disinfection laid down by Koch, viz: "the absolutely certain destruction of all pathogenic organisms, in the shortest possible time, at the least expense and with a minimum injury to the object of disinfection." For practical purposes ten or fifteen minutes is a short enough time for the sterilization of instruments, and this can be done with five or three grains paraform.

Chronic Gastro-Intestinal Catarrh.*

By WM. J. McANALLY, M. D., High Point, N. C.

 **CHRONIC** gastro-intestinal catarrh, is by no means an infrequent disease. I realize its importance and am conscious of my inability to do justice to such a broad subject in this paper. But if I shall succeed in drawing out discussion then my labor is not in vain. These old dyspeptics of whom I shall speak have suffered a great deal and have been despondent and cross a long time. To relieve them is to win their lasting friendship and make perhaps more than one soul happy. This trouble may arise from a variety of causes, among which are abuses of whiskey and tobacco, irregularity in eating, eating too much and too fast, use of too many cold drinks, poor and improperly cooked food, and of course various troubles in other parts of the body as cancer, cirrhosis of the liver, Bright's, &c. But of these later cases I shall not speak, my remarks shall be confined to those cases in which the cause may be removed. During the three years I have been practicing many interesting cases of chronic gastro-intestinal catarrh have come under my care. In the diagnosis and treatment of these cases no Ewald or other test meals have been given and no chemical or microscopical examination of the stools or stomach contents were made, because I did not have the necessary apparatus. But I arrived at my conclusions as to the cause and kind of trouble in these patients by observing their habits, food they ate, what agreed with them best when they were in more distress, whether the pain was continuous or not, the presence or absence of hunger, &c. What I have to say can perhaps be made more plain by citing cases. Miss J. B., a lady of sixty, who had for a number of years been troubled with her stomach and bowels had when I first saw her been confined to her room four months and could scarcely take any food without intense suffering, and a little over

* Read before the North Carolina State Medical Society, Asheville, N. C., May 30, and June 2, 1899.

her starvation diet would cause so much pain and burning in stomach and bowels, beginning about one half hour after eating, that she was compelled to take morphine.

All this time her bowels were moving from four to eight times a day and contained much mucus often streaked with blood. She was thirsty and would occasionally have some fever. Tongue was large and flabby, red at edges and white in the middle, all kinds of food even water would ferment and cause pain. Diagnosis, anacidity, caused by poor and improperly cooked food and the use of whiskey and tobacco. I believed it was anacidity because she never got hungry and lean meats hurt her just as bad as the farinaceous food, and the fermentation and pain began too soon after eating to be hyperacidity and there was the vomiting of mucus.

I did not think it was cancer or ulcer because the pain was not constant and did not begin immediately after taking food as is the case in cancer and ulcer, but some twenty or thirty minutes thereafter.

TREATMENT—Gave an ounce of epsom salts to start with, stopped all food except Valentines meat juice, milk and lime water every two hours and a cup of hot water every morning, ordered a capsul of bis-sub-nit 12 grs. and silver nitrate one quarter grain, to be taken t. i. d. one hour after food, and every night a capsul containing five grains sulpho carbolate of zinc and opii one half grain, kept up this treatment for one week and she got along very well and began to be hungry. Then put her on 15 drops acid hydrochlor. dil. and 10 drops tr. nux. vom. in water three times a day before eating and allowed eggs and lean meats and light bread with the milk, discontinued the Valentines meat juice, kept up the bismuth and silver twice a day two hours after meals; in about two weeks all the mucus had disappeared from the stools and her bowels moved regular twice a day, she could manage her food without distress, was gaining weight and has been getting along nicely ever since, but has had to continue the H. Cl. This long continued use of the acid has brought no evil results.

She is doing her house work and eats most anything, feels better, looks well and weighs more than she has in five years. I attribute these results to silver nitrate and H. Cl.

Have never gotten good from pepsin in these cases, and begin to believe like Prof. Hemmeter, of Johns Hopkins, that pepsin has absolutely no place in the treatment of these cases. He says it is a very rare thing to find pepsinogen absent from the gastric juice. But there will be no pepsin evolved from the pepsinogen if H. Cl. is absent. All that is needed to get the necessary amount of pepsin is to supply the H. Cl. Really we have very little use for the commercial pepsin at all except when it is desired to digest food outside of the stomach. If H. Cl. is absent there will be scarcely any digestion done in the stomach. Meats cannot be digested at all. A short while after food is taken fermentation will begin in the stomach and even the starches which need no pepsin or acid for their digestion will be ruined and rendered useless.

The organic acids formed by this fermentation will irritate the mucous membrane of the stomach and bowels and produce an unhealthy condition of the entire alimentary canal.

For this condition of affairs we can readily see the rationality of sweeping out the alimentary canal, (and nature had been trying to do this by the

diarrhœa which we find present,) and then give antiseptics to prevent fermentation and silver nitrate to produce a reaction and bring about a healthy condition of the mucous membrane.

Supply the acid and give strychnine to help the motor power of the stomach and patient will improve right along. The vomiting in the case just mentioned was only once or twice a week, had it been worse I should have used Lavage. Anacidity is a disease which may last for years, even a lifetime and in different patients we see every degree of severity, it is more often met with and causes a great deal more trouble than hyperacidity, but some distressing cases of the latter are seen. B. D., male, aged 42, came under my care in January, 1898. Had four years been suffering hyperacidity, he was nearly always hungry and the hunger was accompanied by burning and an annoying sensation in the stomach which was relieved by taking food or water, but would begin again in about an hour after eating and would be worse than when the stomach was empty. He had been compelled to take bicarbonate of soda to stop this pyrosis. Lean meats, eggs and other proteids would prevent the burning being so severe and a big meal of lean roast beef (and by the way he could eat the most of any man I ever saw) would entirely stop the burning for five or six hours, but an ordinary amount would not stop it entirely very long, though he never suffered so very much when he got a reasonable amount at each meal and took his soda. But when he ate a lot of potatoes and beans and only a little meat and took no soda after eating the burning would be so intense that he could hardly stand it, and the motor power of his stomach would get so strong from the stimulus the extra amount of acid furnished that the food would be regurgitated and nearly the entire meal would be spit up within an hour and a half. I gave him calcined magnesia twenty grains after each meal, advised him to eat largely of lean meats and eggs and to increase the magnesia when eating vegetables. Magnesia is much better than soda in these cases as there is no gas formed by the action of the gastric juice upon it. He has been getting along beautifully and has had no more diarrhœa and no tenderness over his bowels. The meat uses up the acids while it is being digested, and Prof. Memminger says this kind of treatment will, after awhile stop the formation of so much acid in the stomach and he has fully demonstrated the fallacy of the old theory that an alkali in the stomach will increase the amount of acid secreted. Thus we may relieve many a dyspeptic and even the old alcoholic stomach may be repaired and made to do good service again, but where there has been much destruction of mucous membrane that patient's digestion, like the one-legged man's walk, will never be perfect again, but let us give him the crutch.

Hon. Theodore Roosevelt concludes his serial, "The Rough Riders," in the June *Scribners*, giving an account of "The Return Home" of that famous troop of cavalry. The magazine for June also contains an entertaining story of "The War With the Insurgents at Manila." But there is more than war in this number. For instance, those who enjoy the artistic and the peaceful will find something to their tastes in "The Modern Group of Scandinavian Painters" and "The Education of the Artist." Quiller-Couch's clever story "The Ship of Stars" is now running in this periodical.

SANMETTO AND IMITATIONS.—I gave Sanmetto a trial in a case of gonorrhœal cystitis where all the usual remedies and Sanmetto imitations had failed, and it gave the desired result. Will continue to use it.

Hudson, Iowa.

L. H. SARCHETT, M. D.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.
Editors and Proprietors.

W. H. WAKEFIELD, M. D.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.

J. HOWELL WAY, M. D., Waynesville, N. C.

J. ALLISON HODGES, M. D., Richmond, Va.

S. WESTRY BATTLE, M. D., Asheville, N. C.

GEO. G. THOMAS, M. D., Wilmington, N. C.

J. P. MONROE, M. D., Davidson, N. C.

R. L. PAYNE, M. D., Norfolk, Va.

H. S. LOTT, M. D., Winston, N. C.

J. W. LONG, M. D., Salisbury, N. C.

H. A. ROYSTER, M. D., Raleigh, N. C.

ALBERT ANDERSON, M. D., Wilson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

THE ASHEVILLE MEETING.

The State Medical Society held its forty-sixth annual meeting in Asheville at the Battery Park Hotel. The attendance was good, some 286 members being present, and the character of the papers read and the discussions which followed were fully up to the average. The brothers in Asheville performed the duties of host with such assiduity that it was with difficulty the social features of the occasion were kept subordinate to the professional, and the visiting doctors one and all grow enthusiastic when speaking of their entertainment. The citizens of Asheville, Dr. Fletcher and his committee on arrangements are certainly deserving of the gratitude of the Society for their admirable management of the meeting.

The president's address was an able one and the practical suggestions made were all worthy of the serious consideration of the Society. We are with Dr. Picot in his desire that no other medical organization in the State should be encouraged to the hurt of our own State society, which ought always to remain first in the hearts of the physicians of North Carolina, and we believe it will.

The meeting lasted four days, a length of time regarded by many as too long, but there is this to be said of a long session, that it enables members to attend some part of the time, who in the case of a two days meeting for instance might find it impossible to be present on either. Another reason for a long session is found in the social features of such occasions. Many of our physicians rarely leave their homes during the year except to attend the Society, they are certainly entitled to four days of social and professional intercourse.

Some disappointment was expressed that the committee on the Pittman prize did not see fit to bestow the prize upon any of the papers coming before them. We should like to see it given to the best paper coming before the committee. This would have the effect of stimulating the young men of the Society to compete for it, with the certainty that the prize would be awarded.

It is satisfactory to know that fifty-three new members were added to the Society at Asheville—one-half of this number being newly licensed practitioners.

We congratulate the Society upon the selection of officers for the ensuing year; they are men having the good of the profession at heart and will leave no effort untried to render the next meeting at Tarboro a most successful one.

Meeting of the North Carolina State Medical Society.

FIRST DAY—TUESDAY, MAY 30TH.

The Forty-Sixth annual session of the Medical Society of North Carolina was called to order on May 30th, in the Battery Park Hotel, Asheville, N. C., by Dr. H. M. Fletcher, Chairman of the Committee of Arrangements, The President, Dr. L. J. Picot, in the chair. Invocation was made by Rev. Dr. Byrd, of the Central Methodist Church. The Hon. Locke Craig then delivered an address of welcome to the Society in his usual happy style, which was listened to with great interest. Dr. Benj. K. Hays, of Oxford, N. C., made the response in a similar pleasant strain.

President's Address.—This was delivered by Dr. L. J. Picot, who congratulated the Society upon its present prosperous condition, and called attention to the fact that the State Society was sufficiently commodious to hold all the medical men of the State, thus rendering the formation of other medical associations superfluous. He also recommended that a benevolent association be formed by the Society for the purpose of insuring the lives of members.

The President appointed the following Committees: On Finance, Drs. A. G. Carr, C. M. Pool and T. S. McMullan. On Credentials, Drs. H. M. Fletcher, H. A. Royster and A. A. Kent.

The Continued Fever of North Carolina.—An excellent paper of this title was read by Dr. Benj. K. Hays, of Oxford, and elicited a very interesting discussion, participated in by Drs. Reagan, Royster, Booth, O'Hagan and Williams.

Pittman Prize.—Dr. Baker announced that Miss Minerva Pittman, the daughter of the late Dr. M. J. Pittman, for many years an honored member of this Society, desired to offer a prize of one hundred dollars in cash to be competed for annually by members of the Society, under such rules as it should see proper to establish. She desired to impose only one condition, viz: that the award should be made for original work or investigation upon

any subject pertaining to medicine leaving all other conditions to the pleasure of the Society. Miss Pittman hoped the Society would see fit to accept this offer so that the award might be made at this meeting. It was moved and carried that the offer be accepted and that a committee of three be appointed to have this matter in charge. Dr. Julian M. Baker, Dr. Geo. W. Long and Dr. J. P. Monroe were appointed on the committee.

The Committee on Credentials reported and recommended for membership in the Society the following gentlemen:

Drs. A. S. Pendleton, of Warrenton; S. L. Russell, of Spillman; N. C. Daniel, of Adoniram; C. A. Anderson, of Burlington; J. A. Morris, of Wilton; Thos. P. Cheeseborough, of Asheville; B. Ray Browning, of Littleton; D. E. Moore, of Sandy Mush; J. E. Smithwick, of Jamesville; R. L. Allen, of Waynesville; Drs. J. B. Matthews, Chas. S. Jordan, Chas. L. Pearson, A. M. Bennett, Earl Grady, H. C. Menzies, Jos. Sawyer, L. B. McBrayer, Jno. M. Osborne, D. E. Seviars and J. T. Seviars. Drs. Chas. Van Berger, J. H. Woodcock, J. C. Gouger, Mary Nelson Denison, Norman C. Hunter, Jno. D. Macray, Chas. L. Scott, W. C. Lauderdale, D. L. Macketham, G. M. Van Poole, J. F. Peavy, Thos. Springfield, J. Warren Achorn, W. E. Miller, Harris R. Moore, A. M. Whistnant, R. Hicks, W. H. Smith, W. O. Nisbet, J. H. Burrell, S. H. Crocker, Wm. Fountain, F. L. Brooks, R. T. Steele, L. H. Love, J. P. Whitehead, S. H. Lyle, W. J. McAnally, T. W. Long, H. M. Hilliard, Jno. McCampbell, Jno. B. Wright, Paul Paquin, S. H. Crocker, Geo. H. Kirby, D. A. Garrison, K. T. Yarborough and T. W. Davis.

"Typhoid fever as met with in Fayetteville and surrounding country," was the subject of a paper by Dr. J. F. Highsmith of Fayetteville. Discussed by Dr. O'Hagan.

"Chronic Gastro-Intestinal Catarrh," was the title of a paper read by Dr. W. J. McAnally of High Point.

"A Study of the Bacteriology of *Specific Urethritis*" by Dr. E. B. Glenn of Asheville. Dr. E. C. Levy of Richmond, Va., Professor of Bacteriology discussed the paper.

WEDNESDAY.

The Treasurer read a letter from Dr. R. W. Mills of Troutman, N. C., in response to a notice of the annual dues due the Society by Dr. Mills. The Society unanimously voted that Dr. Mills' dues be remitted and that he be permitted to remain a member of the State Medical Society during his life time without further payment of dues.

The President appointed the following committee on nomination: H. B. Weaver, H. H. Harris, J. M. Baker, B. F. Halsey, Geo. L. Kirby.

The Finance Committee made a report showing the following on hand: May 31st, 1899 of \$307.71 and recommended the usual assessment of \$2.00 per capita and continued the salary of the Secretary and the Treasurer the same as heretofore; they also recommended that the Treasurer notify each delinquent member of his indebtedness.

Dr. C. S. Mangum of Chapel Hill presented a paper entitled, "Progress in Serum Therapy." Dr. McKenzie read a paper on "Antiseptic Midwifery,"

discussed by Drs. Kent, McMullan, O'Hagan, Watson, Royster, Herring, Geo. W. Long and McBrayer. At this point discussion was suspended in order that the Board of Medical Examiners might report.

Dr. Anderson the Secretary of the Board reported the names of 85 applicants for license who had passed successful examination. Dr. Anderson further called attention of the Society to an attempt at fraud upon the part of one of the applicants, which, however, was fortunately frustrated by the vigilance of the board.

Conjoint meeting of the Society with the State Board of Health was held at 12 o'clock. Dr. Geo. G. Thomas submitted the report of the Board. Special attention was called in this report to the epidemic of small-pox in various parts of the State and the necessity of vaccination. Dr. Long, State Inspector, then made a report, giving his experience with the disease. The Board received a vote of thanks from the Society for the excellent manner in which they had performed their work. The President made the following appointments for the ensuing two years on the State Board of Health, by the Governor: Chas. J. O'Hagan, J. L. Nicholson, Albert Anderson, R. H. Lewis and Col. A. W. Shaffer, Sanitary Engineer. The Society then elected the following four gentlemen to serve on the Board: S. W. Battle, George G. Thomas, Henry W. Lewis and W. H. Dodson. The committee appointed to report on the President's address heartily coincided in the opinion that it was unwise to aid in the formation of medical societies in North Carolina that would directly or indirectly detract from the State Medical Society. They also recommended that a committee of three be appointed, the President himself to be chairman, to take under advisement the organization of insurance to be conducted within the Society. They further suggested that some steps looking towards reciprocity in the exchange of licenses between the different States having the same standard should be taken and that in their opinion it would add interest to the meeting of the Society to have a section on "Pediatrics and Railway Surgery." Dr. W. H. H. Cobb, President of the Tri-State Medical Society, in discussing the report of the committee, explained the object of the Society of which he was President and showed that it in no way would detract from the efficiency of the State Society. Dr. Booth moved that the report of the committee be taken up and passed upon in sections; rejected. It was then moved and carried that the report be accepted as presented by the committee.

Dr. Chas. J. O'Hagan nominated Dr. Geo. W. Long for President. Dr. Lewis moved that the nomination be closed and the secretary cast the vote of the Society for Dr. Geo. W. Long, of Alamance, for president; this motion carried unanimously. The following gentlemen were then nominated and elected: Dr. C. M. Poole, first vice-president; Dr. Williams, second vice-president; Dr. J. M. Parrot, of Kinston, third vice-president; Dr. W. D. Hilliard, of Asheville, fourth vice-president; Dr. Geo. B. Pressly, secretary; Dr. E. T. Sikes, treasurer. The Society then unani-

mously voted that the next annual meeting be held at Tarboro, N. C., in 1900, the exact date to be fixed later.

THURSDAY.

Dr. J. M. Baker, Chairman of the Committee on the Pitman prize having resigned, Dr. Richard H. Whitehead of Chapel Hill was appointed in his place.

"Asepsis and Antisepsis in Surgery" was discussed in a paper by Dr. Cheatham of Henderson, Chairman of section on "Anatomy and Surgery." Dr. F. T. Meriwether of Asheville presented a paper entitled, "Some remarks upon Coley's treatment of Malignant Growths."

"An interesting case of Renal Calculus" was presented by Dr. M. Bolton. Dr. R. E. Zackery, of Wilmington, presented a paper on "Gunshot Wounds," with report of a case.

Committee on nomination made the following report:

For Orator: T. S. McMullan, Hertford; Essayist, R. H. Whitehead, Chapel Hill; Leader of Debate, J. M. Parrot, Kinston; Board of Censors, G. G. Thomas, L. J. Picot, R. H. Speight, M. H. Fletcher, C. M. Pool.

Committee on Publication: Drs. R. J. Brevard, G. W. Pressly, D. O'Donoghue, A. J. Crowell, all of Charlotte.

Committee on Legislation: Drs. R. H. Lewis, Raleigh; E. T. Sikes, Grissom; N. Peabody, Durham; L. J. Picot, Littleton; H. A. Royster, Raleigh.

Obituary Committee: Drs. K. P. Battle, Raleigh; P. L. Murphy, Morganton; G. W. Purefoy, Asheville.

Delegates to American Medical Association: Drs. A. G. Carr, Durham; H. B. Weaver, Asheville; S. D. Booth, Oxford; N. B. Herring, Wilson; C. P. Ambler, Asheville; G. L. Kirby, Raleigh; M. Olivia Nelson Denison, Asheville; J. P. Monroe, Davidson; W. W. McKenzie, Salisbury.

Delegates to South Carolina Medical Society: Drs. J. A. Burroughs, Asheville; Nannie L. Alexander, Charlotte; F. H. Russell, Wilmington; W. H. Wakefield, Charlotte.

Delegates to Virginia Medical Society: Drs. Anna M. Gove, Greensboro; H. W. Lewis, Alexander; C. L. Minor, Asheville; W. H. Ward, Plymouth; B. L. Long, Hamilton.

Delegates to American Public Health Association: Drs. A. A. Kent, Lenoir; Carl Von Ruck, Asheville; J. W. Long, Salisbury; J. A. Reagan, Weaverville; S. H. Lyle, Franklin.

The paper of Dr. Mangum on "Serum Therapy," was here taken up and discussed in an interesting manner by Dr. H. B. Weaver of Asheville and Paul Paquin and Dr. Levy.

Dr. G. A. Ramseur, of China Grove presented an interesting paper on "Propropagation of Typhoid Fever and other Infectious Diseases." Discussed by Dr. E. V. Glenn.

Dr. Jno. E. S. Davidson, of Lowesville, presented a paper on "Meningitis."

Dr. R. E. Zachery of Wilmington presented a paper on "Pernicious Malarial Fever."

The paper of Dr. E. A. Moye on "Aconite Poisoning, its Diagnosis and Treatment, with report of case," and Dr. E. B. Goelet of Saluda on "Electricity as an aid to the physician and surgeon," were by motion referred to the Committee on Publication, the authors not being present.

Dr. J. W. Long, of Salisbury, presented a paper on "Ectopic Pregnancy." Discussed by Dr. Royster and Dr. Lott.

Dr. Chas. L. Pearson presented a paper entitled "Report of a case of Carcinoma of the Lung with Tuberculosis."

Dr. W. P. Pritchard of New York gave a "Report of a case of brain tumor relieved symptomatically by an exploratory operation upon the skull."

"Treatment of Typhoid Fever," a paper by Dr. Roberson, of Danville, was referred to the publication committee, the author being unable to be present.

Committee on the Pittman prize reported that two papers were submitted for their consideration, but that neither was, in their opinion, of sufficient original merit to win the prize. The new president of the Society was then duly installed.

The president appointed the following chairmen of sections :

Pathology and Microscopy—Dr. Carl V. Reynolds, Asheville.

Anatomy and Surgery—Dr. Arthur Pendleton, Warrenton.

Medical Jurisprudence and State Medicine—Dr. J. McCampbell, Morganton.

Obstetrics—Dr. W. E. Russell, Hickory.

Gynecology—Dr. B. Ray Browning, Littleton.

Practice of Medicine—Dr. W. E. Spencer, Yanceyville.

Materia Medica and Therapeutics—Dr. D. J. Hill, Lexington.

Chemistry and Physiology—Dr. L. P. Aaron, Mt. Olive.

Pediatrics—Dr. J. R. Irwin, Charlotte.

Railway Surgery—Dr. W. D. Hilliard, Asheville.

On motion by Dr. Lewis, the thanks of the Society were extended to the people of Asheville and the Buncombe County Medical Society, as well as the Oakland Heights Sanatorium for the kind attention and hospitality shown them. Also to the railway company for reduction of rates.

On motion this Society then adjourned to meet in Tarboro, the date to be fixed later.

To the Buncombe County Medical Society—our Hosts. So hearty was your welcome to all visiting doctors that I am constrained to thank you through the columns of the N. C. MEDICAL JOURNAL, and—

"By all the vows that ever men have broke,
In number more than ever woman spoke,"

I pledge myself, and each member of the North Carolina Medical Society, to a perpetual remembrance of the warm hospitality, and princely entertainment of our friends and brothers in "The Land of the Sky." GUEST.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIII.

CHARLOTTE, JUNE 20, 1899.

No. 12

Original Communications.

The Continued Fevers of North Carolina.*

By BENJAMIN K. HAYS, M. D., of Oxford, N. C.

II HAVE no apology to offer for bringing before you to-day a subject with which you are already familiar, which you have often discussed, and of which no doubt you are growing weary.

The frequency with which the continued fevers of North Carolina recur; the honest doubt that often exists in the mind of the most intelligent clinician as to the nature of the fever with which he has to deal; and the stern fact that the responsibility of solving the problem rests upon the practical country doctor, and not upon some theorist in a far away German laboratory, makes it imperative that this subject should ever be kept fresh in our minds.

I have no new theories to advance, but have tabulated answers to fifty circular letters of inquiry in regard to these fevers, sent to representative men in various sections of the State. In addition to the answers sent to me I have drawn from similar reports made in neighboring States, from the latest text books, and from current literature on the subject.

Having made my report I will be followed by gentlemen eminently qualified to discuss this broad subject in its various phases.

1. How to classify the fevers seen in your practice?

To this question the answers were: Malarial, Typhoid and Simple continued or Ephemeral. Six answers included Typho-Malarial and of these two indicated that they regarded Typho-Malarial as a distinct disease.

2. To what extent do they prevail and what is the mortality of each?

Typhoid fever was reported with about equal frequency in the different sections of the State with an almost uniform mortality of 5 per cent. Osler reported a mortality of 8 per cent. in eight hundred cases treated at Johns Hopkins. Malarial is much more frequent than typhoid in the eastern and central portions of the State, rare in the west. The mortality of malarial fever is practically nil with the exceptions of the rare cases of pernicious malarial seen in the extreme east.

*Read before the North Carolina Medical Society, Asheville Meeting, 1899.

Recent investigation has proved that malaria has been diagnosed in this country far more frequently than it exists. More quinine was used in 1880 than in 1890 and far more in 1890 than to-day.

It was the custom in former years, and I regret to say still is with some intelligent practitioners, to regard almost all irregular forms of fever as either malarial pure and simple, or in some way influenced by paludism.

There is no doubt that tuberculosis, typhoid fever and many forms of auto-infection have been repeatedly diagnosed and treated for malaria.

When the fever disappeared with the patient under the influence of quinine it was regarded as a positive proof of the accuracy of the diagnosis, and when the fever continued it was maintained with equal certainty that on a certain class of malarial fevers quinine had no effect.

From the year 1885 to 1890 inclusive, a larger number of deaths was reported from malarial than from typhoid fever in the cities of New York, Brooklyn and Baltimore.

During the past five years deaths from malaria have been very infrequent in these cities, while the mortality from typhoid fever has increased. We would like to believe that this reduction in the mortality of malaria has been due to improvement in treatment or sanitation. Unfortunately it can be accounted for on no other hypothesis than that of an error in diagnosis in the early reports.

3. State frequency and character of eruption?

To this question only one observer answered "Eruption in every case of typhoid." Three or four reported eruption in 50 per cent. of cases, quite a number answered 20 to 25 per cent. and others "seldom seen," "rare and indistinct," "very infrequent."

There is no doubt that the characteristic rose colored eruption noted by Northern writers is frequently absent in otherwise typical cases of typhoid fever seen in North Carolina, and that in this regard at least our fevers differ from those seen in the Northern states.

Loomis doubted if the rose spots were ever absent. Osler and Pepper agree that they are not always present, that they are more frequently absent in children, and that in some cases they are found on other parts of the body when absent from the chest and abdomen. When present they are regarded as pathognomonic.

4. Do you see typhoid and malaria in the same patient? (If so, state whether you regard this as a mere coincidence or do you believe the two to be combined in one disease—typho-malaria?)

To this question Dr. Osler replied "there may be combined infection—we have had one case. This we regard as a coincidence, and so far as our experience goes the malaria does not influence the enteric fever in any special way. A large number of our typhoid cases come from very malarious districts."

Dr. R. L. Payne, of Norfolk wrote, "Both poisons may exist in the same

patient, modifying the usual symptoms though usually the malarial element is eliminated early by the use of quinine."

A reporter of recognized ability who has devoted a great deal of study to this subject, confirming his diagnosis by microscopic examinations, writing from a section in which both forms of fever prevail. "Never; I believe the typhoid germs are killed by toxins from the malarial germs, hence the two cannot exist in same patient at the same time."

A number of reporters—men of experience and recognized ability, notable among whom was the Nestor of our society stated that they had not seen the two forms of fever in same patient.

The majority of reporters, however, recognized the mixed infection as a rare coincidence. Two reported typho-malaria as a separate disease and four others were in doubt.

A number of reporters objected to the term typho-malaria.

It was clearly shown that the term did not convey a definite idea, since one class of observers used it to indicate one condition, while others used it with an entirely different meaning. Thus, the term is employed to indicate the presence of malaria and the specific poison of typhoid fever; by others, malaria of a severe type in which the patient sinks into a typhoid state; while a third class of observers use the term to designate a separate and distinct disease. I have not been able to find it so used however by any standard authority, even among the older writers.

The term was introduced by J. J. Woodward of U. S. A., who wrote as follows: "Typho-malarial fever is not a specific or distinct type of disease, but the term may be conveniently applied to the compound forms of fever which result from the combined influence of the causes of the malarious fevers and of typhoid fever. The results of Woodward's investigations are too well known to be dwelt upon. Among the cases diagnosed by him typho-malaria there was a mortality of 8 per cent. Those diagnosed typhoid fever had a mortality of 35 per cent.

In our recent war with Spain large numbers of camp fevers received careful clinical study, aided by exact laboratory investigations, carried on both in the camps, and in Northern hospitals where many of them were taken for treatment.

Dr. Charles E. Nammack, writing of the camp fevers that he had seen in Bellevue Hospital said, "We found no reason to recognize a distinct type of continued fever which is neither malaria nor typhoid, or one which is a compound of both—the so-called typho-malarial fever."

Dr. Meyer stated that in thirty or forty soldiers treated at Mt. Sinai Hospital there was only one case in which there was any approach to a double infection.

One writer said that he made inquiries at the various hospitals of New York City concerning the double infection and learned that in all but one hospital the malarial organisms had been found in the blood of from one to five per cent. of the typhoid fever cases.

Dr. James Ewing has made the following valuable report, based upon the study of 800 cases of fever at Camp Wykoff. He said, "A great many cases which were indistinguishable from typhoid fever without the most careful clinical examination proved to be clear cases of infection with the aestivo-autumnal organism of malaria. Over 200 cases of typhoid fever were studied and in nearly all of these there was also malarial infection. In spite of these favorable conditions for mixed infections in no undoubted fatal case of typhoid fever (in which the diagnosis was confirmed by autopsy) was the malarial organism found. In five cases of typhoid fever the plasmodium of malaria was found in the blood during acute exacerbations occurring during convalescence from the typhoid fever. From these observations the following conclusions were drawn: (1) Mixed infection of typhoid fever and malaria undoubtedly exist. (2) When typhoid develops in a case of active malaria the malarial element nearly always becomes quiescent, and has little or no effect on the course of the typhoid fever. (3) Malarial infection frequently outlasts the typhoid infection and makes itself manifest during convalescence."

5. Do you see continued fever which is neither typhoid nor malarial? If so give clinical history of such a case?

To this question the majority of the answers were, "No." By others a mild form of fever was described lasting in some instances only a few days, in others three or four weeks and attended by headache and foul tongue, but no epistaxis, diarrhoea, tympany or rose colored spots. Those who had made microscopical examinations of the blood reported the malarial organisms absent, while nearly all agreed that this fever was uninfluenced in its course by quinine.

It is evident that the fever here described as a third form of continued fever by a limited number of reporters is regarded by others as a mild form of typhoid.

Dr. James, in the Loomis-Thompson system of practical medicine, the most recent authority that I have been able to consult, says of these fevers described as simple continued, ephemeral, catarrhal and febricula that they

Are far from uniform in their manifestations;

Comprise irregular cases of many different maladies;

Many are typhoid fever;

Some are due to unnoticed lesions of throat;

Many are due to fatigue or exposure especially to heat.

6. To what extent and with what result do you use quinine in such fevers?

Upon the mild form of fevers just described it was generally conceded that quinine had no effect. Dr. Robertson, of Danville, who likes the name typho-malarial and whose opinions are certainly worthy of most serious consideration writes: "If malarial I give commandery doses of quinine, and when the malarial element predominates, I obtain an abatement of temperature and all symptoms. I do not use it in typhoid fever, but often when not

tolerated in first two weeks of typho-malaria it does good service when the fever remits."

Over the names of three men of recognized ability from an Eastern town was the following: "In this section we always use quinine in all fevers at first and successfully in a large majority of cases. Cases not yielding to quinine in three or four days generally prove to be continued-malarial, typho-malarial or typhoid in order mentioned."

A large number of reporters stated that they had used quinine for the first three or four days for diagnostic purposes. If the fever was malarial in origin it yielded promptly, otherwise it generally proved to be typhoid, in which case quinine was worse than useless.

In a private letter Dr. Osler stated that, "Only a careful blood examination enables us to differentiate cases of the astivo-autumnal malarial from typhoid fever," but in their published writings both Osler and Thayer positively affirm that any form of malarial fever known in this country will yield to quinine in three or four days.

In a paper read before this Society two years ago on this subject, Dr. E. C. Register maintained that quinine was a positive and speedy cure for malaria, and quoted numerous leading authorities to that effect. His position was undisputed by those who discussed the paper at that time and since then has been confirmed by every observer who has based his diagnosis upon a microscopical examination.

The majority of doctors in North Carolina use quinine in the first few days of fever to aid in determining the diagnosis.

This has been my own practice, but recent investigation has convinced me that it is wrong. Take three cases of fever which present, when first seen, the same clinical picture. One is typhoid, one malarial and one due to gastric irritation. We give quinine to all three. Upon the typhoid patient its effect is to increase nervousness, produce nausea and perhaps hæmorrhage and death. The patient suffering from gastric fever is certainly made worse by the quinine and only the malarial patient cured by it. Since it has become possible to diagnose malaria with certainty by the microscope—a method both safe and simple—I maintain that it is wrong to hazard the use of quinine.

Conclusion—From this symposium no definite conclusions can be drawn since the opinions expressed have been so varied. My own conclusions in regard to the present status of the continued fevers of North Carolina are as follows:

1. Mixed infection does exist but is extremely rare.
2. The term typho-malaria is indefinite, misleading and should be abolished.
3. Malarial fever is diagnosed more frequently than it exists.
4. Malaria invariably yields to quinine, therefore there should be no continued malarial fever.
5. Typhoid is the only form of continued fever seen in North Carolina.
6. Tuberculosis, lagrippe, septic intoxication, septic infection (espec-

ially in child bed) thermal, and other forms of fever are often mistaken for either typhoid or malaria.

DISCUSSION.

Dr. Reagan.—I consider the paper a very valuable one, but my opinion is there is a difference in typhoid fever in this mountain country and typhoid fever in a different section. Dr. Miller, professor of the practice of medicine in one of the colleges of Atlanta, and myself had a conversation upon this point some years ago. Dr. Miller frequently visited the mountains in this and other sections in the summer time and saw many fever cases and he agreed with me that there is a difference in the typhoid fever of the mountains and the typhoid fever where malaria exists. Here we have no malaria. There is a large section of the country through here where it is unknown, and I suppose always will be unless it is brought here, but there are cases of malaria which we have to contend with, where persons have the malaria in the system and come here for treatment, and in cases of that kind the typhoid fever here is very much like the typhoid fever of other sections. I am a Tarheel, not by birth or education, but by adoption. I have been here fifty years, and I suppose that would entitle me to be called a Tarheel or North Carolinian. When I came to this country I had a great deal of malaria in my system. It was thought by physicians that I could live but a short time, but I have lived, while those physicians have all gone before me. I think there ought to be a distinction made between the mountain typhoid fever and the typhoid fever of malarial sections.

Dr. Royster.—At Dr. Hays' request I have made up my mind to make a few remarks on this subject. I have already on occasions before this read two papers on this subject before the Society. In the first one of those I took the ground that there was no other continued fever in North Carolina except typhoid and malaria. In the second, I pointed out by some practical work on the subject the proofs that I had brought to bear. I am still of the same mind and want to reiterate the statements I made in both of those papers, though I have recently done very little work in that direction, having been busy with other matters. I have not prepared anything for this discussion, and therefore must go over the ground that I have before done. In my former papers, as I said, I took the ground first that there was no third continued fever in North Carolina. I think the burden of proof rests upon some one who believes that there is, to prove it. In sections where we have malaria we also have typhoid. Dr. Reagan says there is no malaria in Asheville or the western part of the State. I do not know that any series of blood examinations has been carried out in sufficient numbers in fever cases to absolutely prove that question. I do not think I am prepared to believe that. I do not know anything about the so-called mountain fever, or why it should differ from typhoid fever in other localities. Second, I believe that quinine is a specific for malaria. I think sometimes that it is administered in a faulty manner, and I believe, as Dr. Hays

expressed in his paper, the opinion of Dr. Osler that the æstivo-autumal type yields reluctantly to quinine. This is a smaller organism than the other two varieties, lives almost solely in the corpuscles, is much harder for the quinine to affect, and possibly more insidious in its onset and development. I have seen cases of that kind which yielded gradually to quinine, but very surely. Sometimes the fever would last ten days, would begin with a chill and temperature of 103, and fall half or one degree every day until it came to normal. I do not believe in the term "typho-malarial fever," and I concur in Dr. Hays' opinion that it should be abolished. There is no doubt that the two diseases may co-exist. I suppose I have examined the blood of about 150 patients with fever, and I have seen what I regard as two cases of mixed infection. It is my rule in every case of fever to examine the blood as soon as possible. If I find the plasmodium on the first examination I give quinine. If I do not I examine again the next day. This question of administering antipyretics, even quinine, just because the patient has fever, is pernicious. It is not the fever, as we understand, that is producing harm. That is only a surface symptom. My opinion is that to give quinine indiscriminately does harm. It clouds the diagnosis, as much as the continual use of morphine in appendicitis. I have not had experience with the co-existence of the two diseases to see which ultimately predominates, or to make any report as to the relation of the one toward the other. In running over these points hurriedly I may have omitted something, but my opinion remains the same as expressed two years ago although, as I say, I have made but little investigation lately. I must make the assertion again that the burden of proof rests upon somebody to study and name the third form of fever.

Dr. Booth.—The most excellent paper just read is very instructive. There are a few things in it in which I disagree with my friend Dr. Hays. One point that he makes, however, might be misleading, and at the same time he does not mean to mislead. He means exactly what he says. That is, that the term typho-malarial fever is misleading. That is a fact, yet there is a typho-malarial fever in North Carolina. It is not like the mixture which exists between the horse and the donkey—we do not get a mule, but we have the two diseases in the same patient at the same time. We have a case of fever here. The fever is low in the morning and high in the afternoon. You give him a dose of quinine and the fever becomes more regular and becomes a case of typhoid fever. You go ahead and treat your case of typhoid fever, and in the convalescent stage you have a regular case of intermittent fever. There are gentlemen here who say there is no form of continued fever in North Carolina except typhoid fever. Now when I commenced practicing thirty-two years ago there was an epidemic of typhoid fever in the section in which I commenced. We had the swelled abdomen, and tympanitis, a heavy coated brown or thick red tongue, delirium, with the patient sick from six to eight weeks. We knew nothing about antiseptics, yet we gave turpentine, and it certainly did the patient good. I suppose it

was its antiseptic properties. We had diarrhœa, sometimes almost impossible to control. We gave opium and nitrate of silver. We calked the bowels if we could, and we usually saved the patient if we did not have perforation. As a rule the patient got well. In the last ten or fifteen years we have in our section a continued fever. I do not know what it is. None of them die, so we cannot have any post mortem. We have very little tympanitis. They get well in two or three weeks. Quinine does not diminish the fever. I don't know what it is. A good many doctors call it typhoid fever. It is not a febrile fever. It is too long for that. It is not like the fevers we were acquainted with a good many years ago. As I said, quinine does it no good. I believe that quinine does typhoid fever harm. But in this fever, if you take care of your patient and give him antiseptics; even turpentine and calomel he always gets well, and they do not only get well under my treatment, but under everybody else's treatment. Those are the remarks I wish to make for the sake of the older men. The young doctor at the present time has a great advantage over the doctor when I was a young doctor. They teach them more, and they are much better prepared to doctor folks than we were then. They have the microscope. I never but once have seen the malarial germ on plasmodium. I looked in another man's microscope. I have a microscope, but I am not a microscopist. But for the older members of the profession I make these remarks in regard to typhoid fever. I think the older men will bear me out as regards the typhoid fever of the past and the so-called typhoid fever of the present.

Dr. O'Hagan.—Is there such a thing as typho-malaria? The discussion has wandered off into several side issues. I agree, though, with most of the gentlemen who have spoken, that there is no such thing as typho-malaria in this State, but I believe our fever is due to a mixed infection. Time and time again I have seen what we call typhoid fever change into the regular intermittent fever treated by quinine. I have seen again in the convalescent stage, malarial fever express itself in the usual way. Like Dr. Booth, I am an old doctor. I have gone through all manner of experience in fevers. The old typhoid fever with the classic symptoms has disappeared of late years. It is not in any manner so pernicious as it was, and I do not know but that the mortality then was due to overdugging. There is one debt that we owe to-day to the homeopathsists—they have taught us how to accomplish much more with much less physic. Much harm has been done with physic, and more especially in the treatment of typhoid fever. I remember one case where the patient in 30 days took 90 grains of quinine daily and still survived. I will not go into the treatment of these fevers. You are all as familiar with them as I am. I will wind up by thanking Dr. Hays for the admirable paper he has read and the pains he has taken and the valuable information he has given.

Dr. J. H. Williams.—There is one point brought out of which I wish to make special note, and that is in reference to the so-called hybrid fevers—fevers of short duration. They are not fevers that depend upon any distur-

bance of the *prima via* that we know of, they are not malarial. We simply call them typhoid. They are not accompanied by the symptoms that accompany our well marked cases. I have observed typhoid fever in its home, Philadelphia, and you all know what typhoid fever is there. I have had an opportunity to observe it here in this mountain section of the country. We have here a fever symptom of short duration, about three weeks, that has been called by a great many catarrhal fever and gastric fever. A great many names have been given to it, but in almost every instance, and especially of late years, we find that these cases are reported as malaria. They had this form of fever, but what is it? Under the microscope it is shown to be typhoid. It is modified by the environment of the patient. It is modified by the newer methods of treatment, local application of water and all the methods by which we to-day control hyper-pyrexia. We do not give quinine, because we have no malaria here, except in people who come up here with their blood full of it. I believe there will come a time when typhoid fever as typhoid fever will almost disappear from the eastern part of our country, because that is where the germ best flourishes, and in such quantities that it is bringing about a personal immunity which by heredity will gradually eradicate the disease in its well marked form.

Dr. Hays.—Permit me to say in conclusion, that I have far more respect for the clinical experience of these gentlemen who have spent years in the sick room, than I have for any theories, and if my paper has done nothing else than bring out this discussion, I think I can congratulate myself upon having read it. In reply to Dr. Reagan—I agree with him. There is a difference in degree in the fevers we see in the eastern and western parts of the State. I believe they are both typhoid fever. So far as my limited investigations carry me, I believe that the literature of these western fevers is an unwritten book, and I therefore wrote to Dr. J. Howell Way, of Waynesville, for a paper on these fevers, which he is to read, and I am sure he will tell us definitely what they are, as he told me he had collected data on several hundred cases he had treated during the last fifteen or twenty years. In reply to Dr. Booth, he says he likes the term typho-malarial fever. I agree with him that we might use it if it conveyed a definite meaning. There is no objection to it if it conveyed a definite idea, but the term is misleading, therefore let us eliminate an equivocal term and use one in its place which is definite. Dr. Booth is still in doubt as to whether these mild continued fevers are typhoid or not. We all have known of cases in which a crowd will go on a picnic, or drink milk from a dairy, or do something in which the infection is known to be from a single cause. A large number of cases will occur—say twenty-four cases of fever. Six of them die from typical typhoid fever, six have a severe form, six have a mild form, six just feel badly, possibly have a headache and diarrhoea. Are we to believe that this one cause of infection gave four different forms of fever, or is it not more probable that the whole twenty-four had the same form but owing to the difference in the resisting power and the difference in the amount of poison taken, the fever had

a different effect. Dr. T. L. Booth was with me in an epidemic of fevers of this kind, in which I saw over 100 cases. He did not know what they were. Some half dozen of these were typical cases of typhoid fever. The rest were these mild continued fevers. I see no reason on earth for giving a different diagnosis for the two.

Typhoid Fever as Met With in Fayetteville and Surrounding Country.*

BY DR. J. F. HIGHSMITH, M. D., Fayetteville, N. C.

THE physicians in Fayetteville and vicinity are accustomed to seeing cases of continued fever, which apparently come on as a malarial remittent, but is not controlled by malarial remedies, be they ever so well tried. I claim that this type of fever is typhoid, such as we have in this locality, and to illustrate, I cite the following case: Mr. A. came to my office Aug. 1st., complaining of chilly sensation, aching all over, fever 103, felt reasonably well until the day before consulting me, though he had been languid with no appetite for a week. Bowels had been regular, had no headache, epistaxis, general weakness, or any fever until July 31st., the day before I saw him, when he thought he had some fever but was at his work. From this time on for four weeks he had continued fever. When I first saw him I gave him a thorough purgative of calomel 9 grs., bi-carbonate of soda 20 grs., divided into three doses given every two hours, followed in six hours by a dose of salts. From this purgative dose the bowels were moved well. On the morning of the second day I gave quinine sulph. 30 grs., 10 grs., at 5 a. m., 7 a. m., 11 a. m. In the afternoon of the same day at 4 o'clock the temperature being 105, I gave acetanilide 5 grs., with bi-carbonate of soda 5 grs., and ordered it repeated in three hours if the fever was above 103. The second dose at 7 p. m. reduced the fever to 102. This plan of treatment, well regulated diet, quinine sulphate 30 to 40 grs., in the twenty-four hours with tepid baths of water and vinegar was kept up for seven days, fever fluctuating from 105 to 100. On the morning of the 7th, or the seventh day of his illness, I decided to give no quinine, but simply give nourishment and sponge baths, first, if the fever went above 103, if not controlled by baths and kept to 103 or lower, I ordered acetanilide as above, repeated every three hours until the fever cooled to 100 to 101. With this treatment the temperature was held down, it not being necessary to give more than two or three doses in succession to reduce temperature from 105 to 102. On the fourteenth day of his illness, the fever at its highest and without any anti-pyretic, at 4 p. m., did not register but 102. I then discontinued the anti-pyretics and did not repeat them in the case. The bowels had been slightly constipated up to this time. I had given several doses of epsom salts with good results. Each dose would give two or three movements with much relief to the patient. The fourteenth day the tongue being dry and some tympany of

*Read Before the Meeting of the North Carolina Med. Soc. in Asheville, May 30th 1899.

the bowels, I commenced on turpentine 5 drops with mucilage of acacia, tablespoonful, and gave this off and on for the remainder of his illness. From the fourteenth to the twenty-first, fever ranged from 102 to 100; from the twenty-first to the twenty eighth day, from 100 to 98 Far. I gave a well regulated diet, liquid peptenoid, milk, chicken broth, beef juice, stimulents as indicated. After the twenty-eighth day the patient made rapid recovery, no after sequel.

I report this care not for any peculiar symptoms manifested or special treatment in the case, but simply to illustrate in a rough way, the type of continued fever as it is most frequently seen in our section. All cases are not so mild as this, but would place this as an average case. Now and then will have a case come similar and will have either epistaxis, bowel complication, petichial eruption, but it is seldom to meet with these and when we do, it means a hard fight.

I will now report the following case to illustrate how similar the diagnosis was, and under the same treatment how different the results of treatment were: On August 1st, Mr. B. came to my office, on the same day with Mr. A., and with every symptom similar to Mr. A.; came from the same locality, had been drinking the same water, living on the same plantation with him. I gave him calomel followed by saline, then quinine 30 grains, in the a. m. for two days, then reduced to 20 grains per day, and then to 10 grains, dieted him, and on the fifth day he was out, no fever, slightly weak as a result of his illness. In the course of ten days he had entirely convalesced.

It has been my plan in these fevers in this locality to treat them in most cases as malarial fever at the beginning, not knowing in many cases in the beginning whether I had a case of typhoid or malaria, and could arrive at a diagnosis only by exclusion, and taking for granted that typhoid be excluded; then sometimes I don't know what I am treating more than an irregular and continued fever which has to run its course. For many of these cases do not yield to treatment for malaria, yet I think the gravity of the disease is modified or made milder by quinine in the beginning. While on the other hand many of them do not have a typhoid symptom more than the temperature record and that, you will find to be typhoid in character. Such being the case I often feel that I am abusing or needlessly using quinine in many cases and very likely my patient would do better and be more comfortable without it. But how are we to ever know the true cause of the disease? Is it malaria or is it typhoid? Can we arrive at the correct diagnosis without the use of the microscope and an analysis of the blood for the malarial and typhoid bacilli, that we may better know how to direct our treatment in the beginning of the disease? I think in most cases by a careful examination of the patient we can diagnose typhoid as met with in this section from the symptoms which it carries, even though we do not have the clinical symptoms well marked as is taught in text-books. One among the first things I take into consideration is the age of the patient. This disease is most apt to be met with between the age of 16 to 35 years.

The general expression of the patient is a wide awake nervous state, face and lips red, cheeks flushed and eyes bright as if the patient was in the most perfect health. The tongue appears contracted and red around the borders and on extending it will be tremulous, showing a nervous condition, may or may not be coated, moist and of a fairly good color and may remain so throughout the disease. The skin is usually dry, no moisture about it, as is found in malarial troubles and has not that sallow and anaemic appearance so common in malarial cases. After fever has lasted for fifteen or twenty days the patient will have periods of sweating which is not copious. A petechial or rose colored eruption is seldom found, and if so, slightly, and indicates bowel complication. The stomach is found very irritable and has to be watched, so much so that often I have thought that I was dealing with a case of gastric fever. The nervous complications are usually mild as compared to the low mutterings or wild delirium of typhoid enteric. Epistaxis, a most common symptom of typhoid, is seldom met with and when it does occur is not grave within itself, but is a signal in the case, and should warn the physician that he has a stubborn case to treat. The fever is the most marked symptom to govern us in the diagnosis, and in some cases the only thing upon which we can base the diagnosis, in this locality. The temperature record in most cases is very much like that taught in the text-books on enteric fever. Now and then I have seen in the bowels marked typhoid symptoms, much tympany and distention of bowels, gurgling in right iliac, diarrhoea, followed by hemorrhage, but this is not common and when it does occur the patient is apt to be a new comer, his first or second summer in this locality. The assimilation of the bowels is bad, and in them seems to be located the disease, which would appear to be a bilious enteric condition, but not such a state as would be looked for in genuine typhoid; still I believe that the condition existing in the bowels is typhoid; such as we have in this section. I am sorry that I have never been able to make pathological investigations of the true condition of the bowels. If in these cases it is not typhoid, why does not quinine control the disease. We know that quinine does not arrest the disease but as I have said before, in some cases where they bear quinine and it is given in good dose in the beginning of the disease, that it appears to lessen the gravity of the case and makes it much milder, still, it runs its course from three to five weeks, quinine or no quinine. The mortality rate I am not prepared to state, but it is certainly much less than in typical typhoid. As to treatment: get a nurse. Then first, I support my patient by giving a well regulated and easily assimilated diet. Such as peptonoids, beef juice, chicken broth, sweet milk, buttermilk, egg albumen water. For the last few months I have used less sweet milk as nourishment in these cases as many of my patients could not digest it. In these cases I have used buttermilk, chicken broth and beef tea instead, with much better results. I direct my patient to drink water freely for I believe it to be a safeguard to the various organs, and helps the excretory organs to throw off the poison of the disease from the system. Hydrotherapy, in the full sense, I have never used in treatment, but I believe when

the surroundings are suitable, it is good treatment for *some* cases *but not for all*. As to drugs in the beginning of the disease I usually give calomel 8 to 10 grs., with soda when I first see patient, if indicated, repeat the dose in four or five days. I keep the bowels well open. Like to have from two to four movements in twenty-four hours. I have often found that a dose of salts when the temperature rises is much better than an antipyretic. When there is no prostration from numerous actions, I think it best for the bowels to be purged off and on for the first two weeks of the disease and even throughout the disease in most cases purgatives may be kept up. Where stomach is sensitive with torpor of the lower bowels, enemas of warm water are of great service. I find that calomel in small dose, $\frac{1}{16}$ of gr., with soda bicarb., 1 gr., given every hour or two, kept up from twenty-four to thirty-six hours at a time, to be of much benefit by its antiseptic or alterative effect bringing about better secretions of the digestive tract. I use the calomel in this way after the first ten or fourteen days of the disease. Quinine, I most invariably use in large dose in the beginning of the disease: first seven days. If it has no influence over the fever I discontinue its use altogether save for its tonic effect in some cases. The "Woodbridge Treatment" I have never used, but am favorable to its modification. Certainly, so far as to small dose of calomel and thorough purgation in the beginning of the disease. After the first few days, when the fever has assumed its regular course, if there be any tympany, the tongue dry and indicates its use, I give turpentine and keep it up regularly throughout the disease. I also use it as stupes to the bowels. In some cases I have used salol with apparent good results, while in others, have used it with no benefit. Among many other remedies I have used nitromuriatic acid, phosphate of soda, tincture of iodine and carbolic acid (1 to 2) and many other remedies. But first, last, all time throughout the disease look after the lungs, heart, stomach, liver, kidney and bowels. And see that the proper food is used with as little residual matter as possible and that the assimilation be carefully watched and the strength of the patient maintained. This is the most important as has been my experience. And if your therapeutical remedies have not this in view then they are useless. I have found no specific or true remedies that never fail, but each case has to a certain degree to be treated as its own peculiarity demands.

In conclusion let me ask, are the cases of continued fever which we have in this locality, typhoid peculiar to this section; are they continued malarial fever, which has to run its course and is not influenced by cinchona salts, or is it typhoid fever modified by malarial infection, or the result of a combined infection? It is on this differential diagnosis I would like to be able to give a microscopical examination of the blood of a number of cases, such as we have in this locality, that it might enable us to tell which is dependent on malarial infection and those which are typhoid, or a combined infection. The time has come when every practicing physician should be prepared to make microscopical examinations of the blood, that the diagnosis in these cases may be made easy and positive.

Propagation of Typhoid Fever and Other Infectious Diseases.*

By G. A. RAMSEUR, China Grove, N. C.

WHEN my friend Dr. Costner, the chairman of this section, asked me to write a paper, I was in a quandary what subject to select, but the one just read has given me so much anxiety and thought, I at last decided to make it the basis for a few remarks, hoping thereby to provoke a lively discussion, nevertheless I fail to give much light on the subject.

The propagation of infectious diseases as typhoid fever, yellow fever, dysentery and malaria is of vital interest and importance to every practitioner of medicine.

In the province of prophylaxis the earnest and skillful physician can save more suffering and expenditure of money, and confer greater boons upon afflicted mankind than in his efforts to cure disease.

When our grand old science becomes so enlightened that she knows just what methods and means to apply to jugulate the dread infectious diseases, she will have conferred the greatest good upon man and should be called blessed.

It is a fact too well established to be controverted that typhoid fever and other infectious diseases, malaria included, are water-borne under certain circumstances.

I wish to premise, at this point, that these diseases are also fly-borne in their propagation under favorable circumstances.

I wish to speak, more particularly, as to the conveyance of infectious intestinal diseases as typhoid fever and dysentery, in this paper.

From recent observations I have concluded that typhoid fever in small towns, is fly-borne. In cities having a good system of sewerage with closed sinks and closets, in which the excrement is deposited and at once washed away, affording little or no opportunity for access and contact with flies the disease is necessarily water-borne.

On the contrary, typhoid fever in villages with open sinks and closets visited by myriads of flies carrying away the germs on their feet to the accessible dining rooms and kitchens and depositing them on the bread and meat and in the milk and water is, under such circumstances, fly-borne.

Again, typhoid fever prevails in cities, at any season and from time to time throughout the year, provided the germs remain active at all temperatures. While in villages, its rages are autumnal and most extensive during the hotter, drier months, conditions most favorable to propagation by flies, disappearing when the colder weather comes on putting an end to the migrations of these filth conveyors.

The importance of flies in the spread of these diseases, I believe, has been misunderstood, over-looked and unappreciated.

Contrary to views that are held and promulgated as the usual methods of propagation of infectious intestinal diseases, it is now clear to my mind that

*Read before the Asheville Meeting of the N. C. Med. Society, May, '99.

they are spread in small towns and rural districts almost exclusively by flies, and malarial diseases by water.

Since passing through the epidemic at China Grove last summer and fall, I am more than ever convinced of this fact. I at first attributed the propagation to the system of sewerage at the cotton mills, around which the fever was prevalent, the method of drainage, if such it can be termed, being cesspools, which I fully believed had infected the wells. If the disease was water-borne from wells infected by cesspools, then the whole hill was saturated, for there was fever in every quarter and around every well, beginning on the east side of the railroad and ending on the west. I do not think it possible these six or eight wells were all infected or even probable that any of them were the source of propagation in this epidemic, for there are private wells on the grounds and no fever prevailed in any of these families; and if due to infected wells, why did hoar frost curtail the epidemic?

I do not want to leave the impression for a moment I am defending the system of sewerage, for I regard it the most damnable and unconsiderate method and practice, and it is only a question of time when the hill will be saturated, and then the fever will be more far reaching and lasting than if fly-borne.

As I stated above, this epidemic began on the east side of the railroad about the first of June, being confined to one house and only one case. The next cases were in an adjacent house and it spread from house to house until six or seven families in this neighborhood had fever; these drank water from three different wells. Moreover, there were five or six families in this neighborhood who used the same water and who escaped infection. If water-borne, then all these wells were certainly infected, but how can we account for the escape of the other families who drank the same water. It is not possible they all had sufficient resisting power to overcome a dose of germs from day to day, and is it not more probable and plausible that flies carried the germs from house to house infecting the water and food, and when they ceased to be a factor in the causative relation the epidemic suddenly ceased? The disease spread from the east side of railroad to the west side and every street had its quota of cases. The streets all run parallel, the back parts of lots lying adjacent, rendering the kitchens and dining rooms of adjoining residences more exposed to flies that inhabit neighboring privies.

Some years ago, I remember a family living near by a free school house, had typhoid fever, and the nurses, not being properly instructed by the doctor, infected the well by rinsing the chamber and throwing the water about the well to be washed into it with the surface water. The school drank from this well, there being no well on school grounds. Typhoid fever prevailed in all the families that lived in this district and patronized the school. The epidemic continued throughout the winter, family after family and member after member falling victims until the school was suspended, because there were no scholars. This is a plain case of water borne infection. The epidemic that has been devastating Philadelphia the past winter, beginning during

mid-winter and continuing until the last of March, 1899, (five thousand had become victims and five hundred had succumbed,) is in marked contrast to epidemics in small towns with diverse water supply. "When flies are responsible, there are little neighborhood epidemics, extending in short leaps, from house to house without reference to water supply or anything else in common" as in some of the families at China Grove, who were entirely isolated and who did not have their water and so forth in common as was the case in other families. But when water supply is at fault, as it was in Philadelphia, the disease follows its course and use, "the only limitation being the resisting power of individuals drinking it and such household means as boiling and the like as tend to destroy disease germs."

Dr. M. A. Veeder, of Lyon, N. Y., who has made investigations in regard to conveyance of germs by flies, says: "Epidemics spread by flies tend to follow the directions of prevailing warm winds as though the flies wandering out doors after contact with some source of infection, had drifted with the wind, but nothing of the sort is perceptible in the case of water-borne disease." The result of his investigations as health officer and physician during the sojourn of our troops last summer is summed up thus: "In villages and camps where shallow open closets are in use giving access to flies to the chief sources of infection, flies form the chief medium of its conveyance. Hence in villages and camps they are usually fly-borne."

Dr. Veeder states in a paper read before the Buffalo Sanitary Club in December, 1898, that he cut short a grave epidemic of dysentery in its height, there having been forty cases and ten deaths and rapidly spreading from house to house without the occurrence of a single new case after the proper means of disinfection had been instituted as would make conveyance by flies impossible. "In like manner the past summer a lively epidemic of typhoid fever was ended in a day by means directed at conveyance by flies;" so, too, he cites instances, where malarial fevers subsided without the use of quinine by means directed against conveyance by water.

Take for illustration a case of typhoid fever in its prodrominal stage that is not confined to bed, and, while lingering around deposits the excrement in an open closet where, on a hot day, the dejections are literally covered with flies, and the doors and windows of adjacent houses leading into kitchens, pantries, and dining rooms, is it too much to presume that a microscope would reveal fly tracks of more or less fresh excrement, doubtless containing the Colon Bacillus and Bacillus of Eberth on meat, bread, sugar, etc? Is it unreasonable to contend that a single case of typhoid fever could start a severe local epidemic under such circumstances?

Dr. Veeder asserts he has made culture of bacteria from fly tracks and also from the excrement of flies while acting as health officer in the army.

Asepsis and Antisepsis are the sheet anchors in subjugating the forces of infectious diseases. "Clenliness is next to Godliness" and with scrupulousness in regard to room, patient, linen, etc., and through disinfection of

the stools and their prompt removal the danger of a spread of the disease is reduced to a minimum.

The greatest difficulty in these factory districts where laziness and filthiness is the rule is to enforce your instruction in this regard. For this reason I was not successful in jugulating the epidemic at China Grove last summer, but was able to limit its ravages in families who were faithful in performing their part in the work. It is of paramount importance to thoroughly disinfect the excreta before they are removed to closet, etc.

I feel sure, if the rules of asepsis and antisepsis are rigidly enforced in every detail, the physician is master of the situation and can curtail these diseases in small towns.

DISCUSSION.

Dr. E. B. Glenn.—Dr. Ramseur's paper was very interesting, and along a line of thought I have been giving a little study for the past few weeks in the Jefferson Hospital laboratories in Philadelphia, and I have some very interesting plates showing that the fly can carry typhoid fever. Of course it is not new that the fly can carry typhoid, but I do not know of any one who has tried any experiment as to the length of time it can carry it, so I determined to make some experiments, with the aid of Dr. Rosenberger of Philadelphia. We found it very difficult to get any flies at that season of the year, so I sent to Florida and had a lot of bed bugs, cockroaches and flies sent to me. I took the flies to the laboratory in a mouse jar. There I cut the flies wings so that they could not get away. The fly was placed in this jar after it had been placed on a culture of the typhoid fever bacilli. In half an hour he was allowed to walk over an agar plate, and there with his feet inoculate the medium with typhoid bacilli. Of course it was a mixed infection, on account of the fly carrying other organisms naturally found on its feet. The fly was allowed to walk on the media for half a minute. Then he was placed back in the mouse jar. The next day he was placed on another Petri dish spread with agar. Those where the wings were pulled out and those which had a leg broken lived but a little while, but the flies which were well taken care of lived commonly 48 hours. The bed bug and the cockroach lived much longer. I do not know what caused the death of the fly, but I was able to demonstrate that the cockroach carried the infection as long as 96 hours; that no trace of typhoid bacilli was found, but we found various other organisms. The bed bug smears his culture, because he drags on the ventral surface. The fly lifts himself up and infects at different points, while the cockroach is decidedly more cleanly than either in inoculating the media. You will find in one of those plates that the fly not only carries the typhoid bacillus on his feet but also on his wing. He had one wing left, and all the time was trying to fly, and along with that he left a culture of typhoid fever bacilli. I brought these plates, not to show that I had found that the fly does carry the typhoid bacillus, but how long they might carry it. This is a very important point in my opinion, and I think one reason why the prevalence of the disease was so great in the army was because there was an

abundance of flies about the latrines which were so close that the flies flew from place to place in a very short time, very often falling into milk and water, and lighting on uncooked food and cooked food which was not heated again before being eaten. After the food was eaten the men would naturally be taken with typhoid fever, if their power of resistance was not great enough to destroy the organism. The organisms there present on the Petri dishes are of course various pus organisms, and some of the numerous organisms carried by the fly, and the fly is not the only thing that carries infectious diseases. I do not know that infection of malarial fever by water has ever been demonstrated. It has been positively proven that malaria is carried by the mosquito, and that it is inoculated by his bite, and that it is carried by certain kinds of mosquitoes, at different times in different parts of the country. Every mosquito that bites does not carry malaria. The gray dappled mosquito is one of the mosquitoes that carries it. This theory was claimed to be introduced by some Italian observers, but the *Philadelphia Medical Journal*, March 11th, 1899, gives an account of an American named Crawford advancing this theory in 1807. Dr. A. P. A. King claimed that the negro enjoys a partial immunity on account of the character of his sudoriporous secretions and dark skin, the mosquito not being able to see him quite so well.

In some parts of Europe, which I don't recall at this moment to prove that malarial fever was carried by mosquitoes, an observer, Dr. Mason, if I remember correctly, took some up into the mountains to a home for the infirm, where some of the inmates had been for a number of years. Malarial fever had never been known there. They took these mosquitoes and put them into a room with three patients and allowed them to stay all night. In something like a week the patients began to feel a little chilly and had a slight rise of temperature, but not marked chill, and no plasmodia was found in the blood at this experiment. A little later they recovered by doses of quinine. There was only one willing to undergo the experiment again. They got other mosquitoes and placed the patient in the room as before, and all the characteristic symptoms of malaria occurred with the plasmodium in the blood, and fifteen grains of quinine was given daily hypodermically which cured him of the characteristic chill, fever and sweat. Up to this time I have been unable to find any data which proves any propagation of malarial fever by water or air, but it will no doubt be attempted in the near future.

In reference to the importance of the manner in which infection is carried by bed bugs and cockroaches in the laboratories is that often the excreta from patients are thrown around the room on soiled linen, and if these parasites are there they can carry it into the walls of the room and afterwards bring it back again, after fumigation has been completed. Therefore in such instances disinfecting agents which cannot reach or destroy the carrier and his infection is undesirable and imperfect. I think Formaldehyde is the best.

In reference to the propagation of tuberculosis by bed bugs, I recently noticed a case in the *American Microscopical Journal*, October 22nd, 1894, page 295, in which Alleger was quoted by Craig as giving a report by Denevre,

in which a case of tuberculosis was acquired in the bed of a brother who had died of tuberculosis. After the brother's death it was noticed his body was covered by bed bug bites, and investigation showed the bed bug present in large numbers, and 60 per cent of the bugs possessed the power of infecting guinea pigs, which afterwards died of the disease, although the room was fumigated before the second brother occupied the room, evidently proving that the bugs sought a hiding place during the process of disinfection. A report of the work carried on in the Jefferson Hospital Laboratory by Dr. Rosenberger and myself will appear in the *Philadelphia Medical Journal* on the 5th of June, in an address read by Prof. W. L. M. Coplin before the Pennsylvania State Medical Society, at Johnstown, May 17th. I wish to thank Dr. Ramseur for his excellent paper.

Operation for Perforation in a Case of Typhoid Fever.*

By EDWARD MARTIN, M. D., Philadelphia,
Surgeon to the Philadelphia, Howard, and St. Agnes's Hospitals.

AS it is likely that, in the near future, operation will be the rule rather than the exception in cases of perforating typhoid ulcer, it is well that all instances of this operation, whether successful or not, should be published, that thus the profession at large, aided by the medical tabulator, may form a just estimate as to the average chance for life which this form of intervention affords.

The subject of this report was a boy, 12 years old, who was admitted to St. Agnes's Hospital on the 2nd of May. He had been ill for about three weeks with fever, headache, pains in his abdomen, loss of appetite, coated tongue, abdominal tenderness, and marked tympany. On the morning following his admission, about eight o'clock, he complained bitterly of pain in the lower part of the abdomen. His pulse became rapid and weak, his temperature dropped to about normal, and the abdomen became tympanitic. He was transferred to the surgical service thirty-two hours later, and was operated upon at once. An incision was made in the right linea alba, a little below the umbilicus. Offensive pus escaped as soon as the peritoneum was opened, and the coils of intestine were found glued together by a fibrinous exudate, which, upon being broken down, allowed pus to escape in considerable quantities and apparently from many separate pouches. The intestines of the lower segment of the abdomen were so firmly matted together by exudate that much difficulty was experienced in locating the perforation. It lay in a coil placed far back, well within the pelvis. The guide to it was furnished by bubbles of gas and intestinal contents. The loop containing this perforation, the lower part of the ileum, probably not far from the ileo-cecal valve, but this could not be determined positively,—was brought up by stripping it of its adhesions, and the perforation, about the size of an infant's finger-nail; was turned in and secured with a Lembert suture of fine cumol catgut; the adherent coils of intestine were then freely separated from each

*Selected from University Medical Magazine, Penn., June, 1899.

other, strips of fibrinous exudate being wiped and picked off, and a large quantity of thin stinking pus being evacuated, the entire belly cavity was then dried out by gauze sponges and thoroughly flushed with normal saline solution. The two flanks were finally drained with glass drainage-tubes; the pelvis and the upper segment of the abdomen by large gauze wicks. The operation was finished in half an hour, and the child was much shocked. He partially recovered under hypodermoclysis and stimulating rectal enemata, and his bowels were moved freely. The fecal vomiting, from which he suffered before operation, recurred with the reaction from shock, and he died sixteen hours after operation.

From the operative stand-point it is important to note that the length of time which had elapsed between perforation and operation, thirty-two hours, made the finding of this small perforation extremely difficult.

I have operated in one other case of typhoid fever perforation, or at least it was so diagnosed by the attending physician. The history was vague, and I can only say the diagnosis of typhoid fever was probable but not proven. Perforation had probably existed for several days, and the exudate had been limited by a plastic peritonitis, so that the operation simply consisted in cutting into a large abscess containing feces, pus, and gas, into which the perforation of the ileum, placed near together, opened. This patient recovered with a fecal fistula.

One other case of typhoid fever I was called upon to operate on over ten years ago. It was in a town near Philadelphia. The patient was in a moribund condition, with enormous distention of the abdomen. There had been no sharp pain, no sudden shock, and the belly, in place of being hard, was simply tympanitic. My own diagnosis was that of ante-mortem tympany from intestinal paresis. The attending physicians insisted that there was a perforation present, and I was persuaded to operate. An exploratory incision was made, occupying but a very few minutes. The peritoneum was found to be absolutely healthy. The patient died within an hour, his end being no doubt hastened somewhat by useless intervention.

I know of one other case in which the abdomen was opened on a mistaken diagnosis, and this mistake, with the growing enthusiasm for intervention in typhoid fever, is likely to occur often enough to give the legitimate operation a serious set-back. There are certainly cases in which a differential diagnosis is extremely difficult. In intestinal paresis there is likely to be an absence of pain, of fixed tenderness, and of the belly hardness which is a common accompaniment in peritoneal inflammation. Moreover, shock, and a falling temperature are not characteristic of this condition. When, however, a patient in the second or third week of typhoid fever complains of sharp, sudden, persistent, agonizing pain, of a great increase of tenderness; when this is accompanied by symptoms of marked constitutional depression, and it is followed by rapid and life-threatening tympany, if there is the slightest prospect of surviving operation, the abdomen should be opened at once.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.
Editors and Proprietors.

W. H. WAKEFIELD, M. D.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.
J. HOWELL WAY, M. D., Waynesville, N. C.
J. ALLISON HODGES, M. D., Richmond, Va.
S. WHESTRY BATTLE, M. D., Asheville, N. C.
GEO. G. THOMAS, M. D., Wilmington, N. C.

R. L. PAYNE, M. D., Norfolk, Va.
H. S. LOTT, M. D., Winston, N. C.
J. W. LONG, M. D., Salisbury, N. C.
H. A. ROYSTER, M. D., Raleigh, N. C.
ALBERT ANDERSON, M. D., Wilson, N. C.

J. P. MONROE, M. D., Davidson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

TYPHOID FEVER.

No disease of modern times, unless it be tuberculosis, has received greater consideration at the hands of scientific medical men than Enteric Fever. From such a statement, one might well draw the conclusion, and it would be a correct one, that Typhoid Fever is of almost universal occurrence in civilized communities, and that a treatment of specific character and practical application has yet to be found. The immense loss to communities by the endemic and epidemic presence in their midst of the disease can hardly be estimated, and yet from a theoretical standpoint, no disease should be more easily prevented. The lamentable failure of the governmental medical department to stay its ravages among the soldiers stationed at the various camps throughout the country during the last war, emphasises the fact however, that the prevention of Typhoid Fever presents difficulties of a more serious nature than would appear at first sight.

Whatever may be the auxiliary causes, there can be no question in the minds of medical men that a contaminated water or milk supply must be held as occupying the foremost place as a etological factor in the production of Typhoid Fever. The histories of numerous epidemics where the source of infection was distinctly traced to one or the other of these two causes, and where the usual corrective measures were followed by a prompt disappearance of the disease are now too well known to admit of doubt upon this point. A certain proportion of cases would seem to occur as a result of contact with those suffering from the infection. This brings up a question relative to the contagious nature of

Typhoid Fever, that is frequently asked us by the laity. Instances have multiplied showing that such danger does exist in the promiscuous use of utensils, towels, and in handling the patient and afterwards eating without properly disinfecting the hands. This latter accounts for the comparative frequency with which nurses in attendance upon Typhoid Fever cases are attacked by the disease. Annequin reports the morbidity from Typhoid Fever in the French army as 1.07 per cent., while that of the nurses in the garrison hospitals amount to 9 per cent. The same relative proportion is said to exist in the military establishment of other countries.

Typhoid Fever is a more prevalent disease in this country than in Europe, though this does not seem to have been always the case and is due to the better sanitary conditions existing in the older country. Such cities as Munich, Hamburg and Berlin, the cleanest city in the world, stand out in marked contrast with any half dozen American cities that might be called to mind. In Berlin Typhoid Fever is said to be practically unknown; quite an object lesson as compared with Philadelphia, for instance. where during the first three months of 1898, 1,713 people died from the disease, and from present reports the mortality from the same cause is not likely to be materially reduced during the present year. The rural sections are an even more inviting field for Typhoid Fever than the large cities, and recent statistics have shown that in the country districts of the State of New York the mortality from this disease as compared with the total mortality from all causes is considerably greater than in New York City, for example. The reason for this, once typhoid fever has become endemic, is obvious, and anyone who cherishes a sentimental fondness for drinking again from the well of his childhood, at the old homestead, had best consider whether at the same time he is not taking a somewhat concentrated dose of the *bicillus typhosus*. When public opinion will demand as prompt an enforcement of the precautionary measures against the spread of Typhoid Fever as is the case with such diseases as small pox or yellow fever, modern civilization will witness another triumph in the saving of human life. Dr. Osler in a much quoted address before the Medical Society of New York reminds us of a recent period of our national history in the following forcible words: "Last autumn this nation, in the moment of victory had a rude awakening, a sudden conviction, a hard lesson. A voice like that heard in Ramah went up throughout the land—'lamentation, and weeping, and great mourning.' From Montauk Point to San Francisco, from Minneapolis to Tampa. Rachels weeping for their lads."

It may be regarded as an axiom of widespread application that there is no method of treating any disease that is not open to many exceptions and modification; hence, as has been well remarked, were it possible to practice physic by rule, the function of the physician would be small indeed. In the discriminating judgment and the special adaptation of treatment to special cases consist therefore the success or nonsuccess of the physician. In the medical management of Typhoid Fever we have an apt illustration of the truth. The

extreme advocate of the Brand method on the one hand and of the elimination or antiseptic treatment on the other, both fortified with a formidable array of statistics would seem at times to sweep away all individual opinion and make a hard and fast rule to which there could be no exception—as neither of these plans of treatment is in any sense of the word specific it follows that neither party can be accorded the right to sit in judgment.

In spite of the violent opposition in certain quarters often upheld by popular prejudice, it must be admitted that in the majority of instances the Brand treatment, or some modification of it, affords the best means of combating Typhoid Fever that has yet been introduced. While by no means adapted to every case and under all circumstances, and seldom used now in the harsh manner first considered essential, it has so far seemed to hold its place in the estimation of the profession, and a more extensive use has served to define its scope of usefulness more clearly. The suspicion expressed by some that the bath treatment was conducive to intestinal hemorrhage is not borne out by experience. In 586 cases studied by Hare before the bathing treatment came into vogue, 2.9 per cent. died from perforation, and 1.88 per cent. from hemorrhage; of 2902 patients receiving the Brand treatment or some modification of it, 2.9 per cent. died of perforation and 1.2 per cent. of hemorrhage.

The eliminative and antiseptic plan of treatment has found a very firm opponent in Prof. Osler, of Baltimore, who protests against the assumption that Typhoid Fever is to be considered chiefly as an intestinal rather than a constitutional disease. In support of this position quite a number of cases have been put on record where the intestinal lesion were very slight or entirely absent but where during life the patient presented a clinical picture of the disease, the blood showing Widal's reaction, and after death examination of the abdominal organs demonstrated the presence of the B. Typhosus. In the matter of employing purgation, great discretion is necessary, at least after the first few days. It is a matter of common observation that constipated cases of Typhoid Fever usually do well and Skirving has studied 500 cases treated at Prince Albert Hospital, Sidney, of which number 404 were constipated, while 76 had diarrhœa; 88 out of the 500 died, of these 88, 53 had diarrhœa.

Quite a good deal of interest is aroused on the possibility of a serum treatment for Typhoid Fever, the nature of the disease being supposed to offer an exceptionally favorable field for this form of therapy. Waeger has reported four cases treated by a specific human serum prepared after the method of Weisbecker, in which the treatment was followed by an apparently rapid and favorable termination.

To Stop Nose-bleed.—Grasp the nose between the thumb and forefinger and press backwards against the alveolar border of the maxilla and downward against the teeth. This compresses the *lateralis nasi* and septal arteries. Satisfactory results also follow the use of tannin and acetanilid.—*The Laryngoscope*.

Board of North Carolina Medical Examiners.

The following are the questions asked the candidates for license at the Asheville meeting of the Board of North Carolina Medical Examiners :

Questions on Surgery.

BY D. T. TAYLOR, PRESIDENT, Washington, N. C.

1. What are the symptoms and treatment of a fracture of the neck of femur within the capsule?
2. What is the treatment of each of the varieties of dislocation of hip-joint?
3. Describe, in a general way, the principal methods of amputation.
4. Give the causes and treatment of acute intestinal obstruction.
5. Give the differential diagnosis between scirrhus and non-malignant breast tumors.
6. Describe herniotomy.
7. What is the difference between traumatic inflammatory fever, septicæmia and pyæmia?
8. What is shock, its course and treatment?
9. In what regions must abscess be opened before fluctuation is detected?
10. What is the differential diagnosis between concussion and compression of the brain? And what are the indications for trephining?

Questions on Practice of Medicine.

BY W. H. H. COBB, M. D., Goldsboro, N. C.

- Define Acute Ileo-Colitis, giving Dietetic and Medicinal treatment?
 Give Diagnosis and Treatment of Typhoid Fever?
 Define Pneumonia and give treatment?
 Give Symptoms and Treatment of Insolation?
 Define Hodgkin's Disease, giving Morbid Anatomy and Symptoms?
 Give Causes, Symptoms and Treatment of Acute Bright's Disease?
 Define Neurasthenia, giving Etiology and Symptoms?
 What is Asphyxia? How is it produced?
 What are causes of death from Asphyxia?
 Define Remittent Fever, giving Treatment?
 Give periods of Incubation, dates of Eruption and length of danger of Contagion of the five Eruptive Fevers?

Materia Medica.

BY DR. E. C. REGISTER, Charlotte, N. C.

1. What are the preparations and doses of arsenic?
2. Name the alkaloids of opium and their doses.
3. What are the medicinal uses of nitrate of silver?
4. Name the two principal cardiac sedatives and compare them physiologically.
5. What substances are incompatible with the mercurial preparations?
6. What are the contra-indications for the use of anæsthetic?

7. Name and describe the potassium salts that act as cathartics.
8. What is the difference in the action on the heart between alcohol, digitalis, and strychnine?
9. What is the difference between tetanus, picrotoxin and strychnine spasms?
10. What are the two principal conditions with which acute alcoholism may be confounded? Give the differential diagnosis of each.

Examinations in Gynecology.

BY ALBERT ANDERSON, Wilson, N. C.

1. Describe some of the methods of making a physical diagnosis.
2. Name the varieties of vaginitis, complications, symptoms and treatment.
3. Classify endometritis; give causes, symptoms, complications and treatment.
4. Classify uterine displacements and give etiology.
5. Give principal disorders and treatment of menstruation.

OBSTETRICS.

1. Describe the process of fecundation and give brief description of the elements entering into it.
2. Signs of pregnancy.
3. Give diameters, planes and axes of pelvis.
4. Define puerperal fever and give its causes and treatment.
5. Give variety of forceps, their action and indications for their use.

PEDIATRICS.

1. Give difference between the clinical investigation of diseases in children and adults.
2. Give a short outline of the general management of children as to feeding, bathing, sleep, clothing and exercise.
3. Define and describe these terms: Caput Succedaneum; Cephalhæmatoma; Asphyxia; Icterus Neonatorum; Ophthalmia Neonatorum.
4. Give the order and age of dentition.
5. Give differential diagnosis between varicella and variola.
6. Give diagnosis and treatment of diphtheria.

Examination in Anatomy.

BY DR. J. HOWELL WAY, Waynesville, N. C.

1. Describe the superior extremity of the ulna.
2. Describe the knee joint.
3. Name the muscles which pass from the scapula to the upper limb and describe the deltoid.
4. Describe the coeliac axis and its branches.
5. Describe the cephalic vein.
6. Describe the fourth ventricle of the brain.
7. Give the course and distribution of the posterior cord of the brachial plexus.

8. Locate the heart and describe its arterial ventricle.
9. Describe the popliteal space, naming structures contained therein and their relations.
10. Locate the right kidney and give its relations.

Chemistry.

BY DR. K. P. BATTLE, JR., Raleigh, N. C.

1. Give the characteristic differences between an acid and an alkali.
2. Describe chlorine; give its physical properties and its chemical action.
3. How would you test for sugar in the urine?
4. How would you detect an excess of carbonic acid in the air?
5. Describe the phenomena of electrolysis.
6. Describe nitrogen, naming its oxygen compounds and its relation to atmospheric air.
7. What are the physical and chemical properties of phosphorus?
8. What is the difference between chemical union and mechanical mixture?
9. Explain what is meant when drugs are said to be chemically incompatible.
10. Give a test for the purity of chloroform.

Examination in Physiology.

BY THOS. E. ANDERSON, M. D., Statesville, N. C.

- I. Define Proteids; how and where digested? Define Amyloid foods; name agents employed in their digestion.
- II. Explain the physiological circuit essential to a reflex action, and cite an instance.
- III. Differentiate voluntary and involuntary muscles; illustrate.
- IV. Explain Amœboid movement; in what organism exhibited?
 - (a) What is Diapedesis?
 - (b) What is Phagocytosis? and to what organ accredited?
- V. In what glands of the body is function undetermined?
- VI. What is the function of the Par Vagus?
- VII. In the function of vision, what is understood by "accommodation?" Name structures employed.
- VIII. Give in cubic inches of air the respiratory capacity of a healthy adult.
- IX. From what part of the Cortex Cerebri do the leg, arm and face receive their motor impulses.
- X. Describe the circulation of the blood in the infant just before and just after birth.

The following named persons passed satisfactory examinations before the examining board and were granted license to practice medicine and surgery in North Carolina:

Dr. I. Warren Achorn, Boston.	Dr. W. J. Meadows, McAdenville.
Dr. H. H. Boss, Rocky Mount, N. C.	Dr. I. H. Manning, Wilmington.
Dr. C. W. Banner, Mt. Airy, N. C.	Dr. Louise Anderson Merrimon,
Dr. D. A. Boyd, Plott, N. C.	Asheville.
Dr. T. L. Brooks, Black Creek, N. C.	Dr. J. M. Newbern, Powell's Point.
Dr. A. W. Calloway, Asheville, N. C.	Dr. J. E. Nobles, Greenville.
Dr. H. M. S. Cason, Edenton, N. C.	Dr. W. O. Nisbet, Waxhaw.
Dr. G. W. Cardwell, Reidsville, N. C.	Dr. Paul Paquin, Asheville.
Dr. J. M. Covington, Rockingham.	Dr. W. D. Price, Charlotte.
Dr. Calvin M. Case, Asheville, N. C.	Dr. W. T. Parrott, Kinston.
Dr. T. M. Copple, Lexington, N. C.	Dr. J. F. Peavy, Asheville.
Dr. T. W. Davis, Louisburg, N. C.	Dr. J. H. Peeler, Faith.
Dr. W. W. Duson, Asheville, N. C.	Dr. G. M. Van Poole, Craven.
Dr. T. D. Drewry, Garysburg.	Dr. T. C. Quickel, Lincolnton.
Dr. A. B. Drafts, Lexington, N. C.	Dr. Geo. H. Ross, Oakdale.
Dr. B. W. Fassett, Crs. Rds. Ch., N. C.	Dr. R. G. Rozier, Rozier.
Dr. Wm. Fountain, Tarboro, N. C.	Dr. R. M. Roberson, Pittsburg.
Dr. Robt. L. Felts, Charlotte, N. C.	Dr. O. L. Ray, Bangor.
Dr. T. I. Fox, Franklinville, N. C.	Dr. Chauncey Rakestraw, Charlotte.
Dr. D. L. Fox, Worthville, N. C.	Dr. S. H. Von Ruck, Asheville.
Dr. D. W. Griffin, Reppetoe.	Dr. Charles L. Scott, Mebane.
Dr. Edmond Gladmon, S. Pines, N. C.	Dr. J. W. Slate, Quaker.
Dr. G. W. Hays, Lancaster, Ky.	Dr. T. W. Shore, Boonesville.
Dr. J. D. Heathman, Woodleaf, N. C.	Dr. J. S. Slate, Mizpah.
Dr. N. C. Hunter, Enfield, N. C.	Dr. O. S. Smith, Waycross.
Dr. H. G. Heilig, Salisbury, N. C.	Dr. R. T. S. Steele, Rockingham.
Dr. R. D. Holt, Smithfield, N. C.	Dr. S. W. Schell, Lenoir.
Dr. H. C. Houston, Walkups.	Dr. J. T. Smith, Westfield.
Dr. R. E. Hollingsworth, Mt. Airy.	Dr. Jas. A. Smith, Raleigh.
Dr. J. C. Hall, Star, N. C.	Dr. W. H. Smith, Marshville.
Dr. Wm. P. Isley, Burlington, N. C.	Dr. T. B. Tyson, Covington.
Dr. T. O. Joyner, Seaboard, N. C.	Dr. J. R. Thompson, Colly.
Dr. C. C. Joyner, Greenville.	Dr. H. McKee Tucker, Raleigh.
Dr. Geo. H. Kirby, Raleigh.	Dr. J. S. Wise, Chester, S. C.
Dr. W. C. Lauderdale, Asheville, N. C.	Dr. J. P. Whitehead, Rocky Mount
Dr. W. G. Leak, Francisco, N. C.	Dr. A. R. Winston, Franklin.
Dr. I. W. Lann, Siler City.	Dr. W. M. White, Statesville.
Dr. L. H. Love, Wilmington.	Dr. F. A. Ward, Gliden.
Dr. J. D. MacRae, Fayetteville.	Dr. L. A. Walker, Stone Creek.
Dr. D. G. McKethan, Fayetteville.	Dr. E. J. Widby, Lenoir.
Dr. H. S. Monk, Newton Grove.	Dr. J. B. Wright, Coharie.
Dr. W. E. Miller, Burlington.	Dr. J. P. Wimberly, Rocky Mount.
Dr. H. R. Moore, Burlington.	Dr. Ida M. Wilson, Charlotte.
Dr. C. S. Maxwell, Mt. Olive.	Dr. R. F. Yarboro, Louisburg.

News and Items.

Dr. Wm. Osler has resigned the deanship of the Johns Hopkins Medical School.

Dr. H. H. Mudd, St. Louis, has been elected dean of the medical department of Washington University.

Dr. J. R. Reitzel has removed from Woodleaf to High Point, N. C., for the practice of his profession. We wish him success in his new field.

Dr. J. William White, professor of clinic surgery at the University of Pennsylvania, Philadelphia, has recently been appointed by President McKinley a member of the Board of Visitors of the Military Academy at West Point.

When the doctor tells a woman to diet she eats less at the table and more in the pantry.

Prof. Roswell Park makes the startling prophecy that if for the next ten years the present relative death rates are maintained, in 1909 there will be more deaths in the State of New York from cancer than from consumption, small-pox and typhoid fever combined.

The medical profession has, alone among the learned professions, always adopted the plan of charging according to the means of the client, and this custom has long been an accepted fact, so much so as to be understood to form the basis of the contract, even when the charges have to be recovered by legal process.—*Medical Times and Hospital Gazette*.

Nicola Tesla, the great electrician, is at Colorado Springs making some experiments in the rarefied electrical atmosphere of Colorado. From the number of electrical belt advertisements in Denver's daily newspapers we feel certain that Mr. Tesla's experiments will be seriously interfered with by the extra electrical waves generated here in Denver.—*Colorado Medical Journal*.

The eminent surgeon closed his pocketbook with a snap on the \$100 fee a wealthy patient had just paid him for a successful operation for appendicitis.

Tell me the appendix vermiformis is a useless organ, will you?" he soliloquized.—*St. Louis Clinic*.

Typhoid in the Army.—The board appointed by the War Department, at the request of the Surgeon General, to study typhoid fever in the camp has reached some conclusions that are in line with the suggestions made in Dr. Ramsey's paper in this issue of the JOURNAL. The report will be ready in a short time and will indicate that the water supply had but little to do with the spread of typhoid, but that the history of the appearance and spread of the disease points to the agency of the wind as a carrier of the dried germs in dust and to the common house fly as an active carrier of infection.

Dr. Andrew H. Smith, in speaking of pneumonia, says: "The lung differs from all other structures in having two separate circulations, the nutritive, supplied by the left side of the heart through the bronchial arteries, and the functional, supplied by the right side of the heart through the pulmonary artery. This double circulation underlies all the phenomena of pneumonia, and must be recognized in any definition of the disease, as without it the disease itself could not exist."

The University.—The growth and expansion of the University should be a matter of pride to every North Carolinian. In efficiency, patronage and public favor it is now second to none in the South. Its requirements are exact, its standard rigid, its tone of life high and manly. Its academic roll is the largest in the South, and in all its history it has never been so close to the people, and so able to serve them. Ambitious and needy boys should remember its motto is equality, opportunity and self-help.

The University and Bellevue Hospital Medical College.—By the will of the late Dr. Valentine Mott, perpetual provision was made for the following medals:

A gold medal to the candidate who shall prepare the best Anatomical or Anatomico-Surgical preparation.

A silver medal to the second best of that description.

A bronze medal to the candidate who shall furnish the best book of recorded cases and remarks of the professor at the Surgical Clinics.

The gold medal is awarded to Albert S. Morrow, A. B. Class 1901.

The silver medal is awarded to Arthur B. Bradshaw, Class 1901.

The bronze medal is awarded to Williard Monrort, Class 1899.

The New York Medical Journal, commenting upon an editorial in "*Medicine*," suggests segregation of the American Medical Association into geographical branches, which should meet annually at places convenient to themselves, while the entire organization should hold biennial, or, better, triennial meetings in some large city near the center of the territory constituting the United States, say Chicago, St. Louis, Kansas City or Omaha, in turn.

The association has so far outgrown its original purposes of organization, that it is no longer able to cope with the vast extent of territory to which it has spread. When the members were confined mostly to the Eastern and Middle States it was convenient and inexpensive for all members to attend. The membership has now spread from one end of the country to the other, and the plan of holding the annual meeting first in one part of the country and then another, must work a hardship on some sections of the country each time.

The *Colorado Medical Journal* takes up the inspiration first thrown out by "*Medicine*" and passed on to us by the *New York Medical Journal*, and we hope to see the question discussed, with some view to action.

The Medico-Chi. Wins.—Supreme Court says it can grant degrees in dental surgery. The Medico-Chirurgical College petitioned the Common Pleas Court No. 3, for leave to amend its charter so as to grant the diplomas and degrees in dental surgery, etc.

This was resisted by the Philadelphia Dental College on the ground of want of authority to do so, etc. The Common Pleas Court decided in favor of the Medico-Chi., and the Dental College took an appeal from this decision. The Supreme Court in an opinion by Justice Dean, this morning confirmed the decision of the lower Court, and dismissed the appeal. L. Webster Fox is Secretary of the Board of Trustees.

The American Electro-Therapeutic Association.—The ninth annual meeting of the American Electro-Therapeutic Association will be held in Washington, D. C., on September 19th, 20th, and 21st, 1899, under the presidency of Dr. F. B. Bishop, of Washington.

Quite a number of papers of great scientific value have been promised and the committee of arrangements insures the members a very entertaining and pleasurable meeting. Aside from the sessions of the Association, the committee has completed arrangements for a trip to Mt. Vernon, one to Arlington, and several other social features.

The headquarters of the Association will be at Willard's Hotel, where special rates will be given to members and their families during the meeting.

Necrology.

DR. J. WISEMAN, of Farmington, Davie County, died Sunday, June 18th, in his 74th year.

He was a graduate of the University of Pennsylvania, and assistant surgeon in the 42nd Regiment, North Carolina State troops.

DR. J. LAWSON TAIT, the famous English surgeon, died suddenly at his summer home in Wales, on June 13th, 1899.

TREATMENT OF DYSENTERY.—Dr. Christopher C. Cronkhite (*Medical Review*, May 20th, 1899,) gives an interesting account of an epidemic of dysentery in which he had an opportunity of treating twenty-three cases. Owing to the bad hygienic conditions prevailing it was found very difficult to successfully combat the disease. The treatment consisted chiefly in the administration of Tannigen in doses of 5 to 10 gm. every three or four hours, according to the age, in connection with the necessary dietetic regulations. In some cases its use was preceded by small doses of calomel given for the purpose of cleansing the alimentary tract. Under this treatment the fatality in twenty-three cases was only two, and these, the author believes, would have recovered with careful and intelligent nursing. On the ground of two year's observation, he states that in diarrhea Tannigen is his first and last remedy, that it will cure ninety-nine of every one hundred cases, and that the physician can use it with absolute confidence in its powerful curative properties in dysentery and diarrhea.

Therapeutic Hints.

For Cough During Measles :

- R Spts. etheris nitrosi ʒij.
Ammon Chloridi, ʒ ss.
Pulv. ipecac. et. opii., ʒ i.
Syr. Simp., ʒ iiij.
M. Sig. Shake well before using. Dose, one to four teaspoonfuls. —EBERT.

Acute Tonsillitis in Children :—

- R Tinct. aconiti, m. viij.
Liq. ammonii citratis, ʒ ij.
Syr. aurantii, ʒ iss.
Aq. dest. q. s. ʒ ij.
M. Sig. Teaspoonful every three hours for a child of five years.—ASHBY, *Med Record*.

Irritable Bladder After Confinement:

- R Salol.... }
Tinct hyoscyami } āā 8 (ʒ ij.)
Infus Buchu.....qs. ad 180 (ʒ vi.)
M. Sig. : Tablespoonful three times a day.—*W. E. Fothergill*.

Acute Colic.—The North American Practitioner recommends the following for acute colic due to indiscretions in diet:

- R Chloroform ʒ iss
Deodorated tinct. of opium ʒj
Camphor gr. iv
Ol. cajuput ʒj
Aq. ʒij.
M. One tablespoonful to be taken every hour or two.—*New York Medical Journal*.

Pruritus of the Vulva.—In cases that are not parasitic, says the Independent Medicaire, M. Mussy advises the following application :

- R Finely powd. starch, gr. 300.
Bismuth subnit.
Potass. brom., aa gr. 15.
Calomel, gr. 8.
Powd. belladon, gr. 3.
M. To be applied twice a day. It is said to give almost instant relief.

In Cases of Felon.—Find out as soon as possible whether the bone is attacked. Should the terminal phalanx become loose, amputation will nearly always give the most useful finger, especially to workmen.

Carbolic Acid In Tetanus.—Pieraccini, in the *Il Policlino*, Vol. II, 1899, reports that tetanus, even of severe nature, is so much relieved by the subcutaneous injection of 2 per cent. solutions of carbolic acid (according to Bacelli)—in Italy—that the effect of this method can not be doubted.

The author started the treatment as late as seven days after the injury, which was accompanied by severe symptoms, and completed the same very favorably. On the first day a total of 0.1 carbolic acid was injected at suitable intervals, and as early as twenty-four hours afterwards an improvement could be observed. On the following days the quantity of carbolic acid injected was diminished. It was a strange thing that the carbolic acid could not be traced in the urine.—*The Therapist, London*.

Book Reviews.

The International Medical Annual and Practitioner's Index. A Work of Reference for Medical Practitioners. Seventeenth year. Price \$3.00. E. B. Treat & Co., New York. 1899.

This annual has continued through sixteen years to hold a high place in the estimation of the profession. It reviews briefly the new work of the preceding year, and its price is so low as to make it possible for all to obtain it. We know of no work for the price that fulfills its purpose so satisfactorily. New remedies and new action of old remedies are discussed; a summary of the principle alterations in the new pharmacopœia is presented; special articles on the more important subjects and a general review of treatment making up the bulk of the volume.

Annual and Analytical Cyclopœdia of Practical Medicine. By Charles E. de M. Sajons, M. D., and One Hundred Associate Editors, assisted by Corresponding Editors, Collaborators and Correspondents. Illustrated with Chromo-Lithographs, Engravings and Maps. Volume III. The F. A. Davis Company, Philadelphia. 1899.

We have only words of commendation for the latest volume of this most excellent work. The high character that marked the work done on the two preceding volumes is evident in this. The present volume embraces Dislocations—Infantile Myxedema, and hence we find discussed in its pages such important subjects as Infantile Myxedema, by Drs. Osler and Norton; Exophthalmic goitre, by Dr. Putnam; Dysentery, by Dr. Flexner; Endometritis, by Dr. Byford; Dislocations and Fractures, by Drs. Stimson and Keyes; Hip-joint Disease, by Dr. Sayre, et cetera. These subjects, as well as all others discussed in this volume are carefully prepared and present the most recent investigations.

Chapman's Human Physiology, for the use of Students and Practitioners of Medicine. By HENRY C. CHAPMAN, M. D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia. New (2nd) Edition thoroughly revised. In one handsome octavo volume of 921 pages, with 595 engravings. Cloth, \$4.25, net; leather, \$5.25, net. Lea Brothers & Co., Philadelphia and New York.

This, the second edition of Dr. Chapman's widely known work is constructed upon the plan of the first edition, which was so popular, but every page shows the marked revision required by physiological progress.

These revisional changes are especially to be noted in the section on the Nervous System. The author's vast experience as an original investigator, clinician and teacher have enabled him to furnish a comprehensive, clear and modern book, intelligible and readily grasped by the student, and of great value to the busy practitioner by reason of its close bearing upon pathological as well as normal conditions.

The volume is profusely illustrated, and while its size, paper, binding, etc., equal the first edition, its publishers offer it to the profession at a notably lower price.

FOR the past ten years I have constantly prescribed Peacock's Bromide find it the sedative and anodyne par excellence in all convulsive and nervous affections, and I prescribe no other. I find it superior to the commercial bromide in simple combinations. It will give me much pleasure to further utilize its occasions demand.

CHAS. KELLY GARDNER, J

Huntington, W. Va.

PHILLIPS' PHOSPHO-MURIATE OF QUININE, COMP.

(the Soluble Phosphates, with Muriate of Quinine, Iron and Strychnia)

In deficiency of the Phosphates, lack of nerve tone, malarial manifestations, convalescence from exanthemata, etc.—WILL NEVER DISAPPOINT.

BEWARE OF THE MANY IMITATIONS.

PRESCRIBE "PHILLIPS' "

THE CHAS. H. PHILLIPS CHEMICAL CO., 77 Pine St., New York.

Twenty-Second Year.

JULY 5, 1899.

Vol. 44, No. 1.

NORTH CAROLINA Medical Journal.

Published Semi-Monthly at \$2.00 per Annum.

Robert L. Gibbon, M. D.,

Robert D. Jewett, M. D.,

W. H. Wakefield, M. D.,

Editors and Proprietors.

[Entered at the Post-Office at Charlotte, N. C., as Second-class mail matter.]

We Test Them Physiologically

ERGOT, CANNABIS INDICA, DIGITALIS, STROPHANTHUS,

and other toxic and narcotic drugs. If you want a *reliable* fluid extract of these drugs that is submitted to a careful physiological test before it leaves the laboratory, specify P., D. & Co., and you will get it.

ONE REASON WHY YOU SHOULD SPECIFY P., D. & CO.

Over 30,000 pounds of Cannabis Indica and 20,000 pounds of Ergot were rejected by us during the past twelve months—condemned by our Pharmacological Laboratory on the cogent ground of defective activity, or complete inertness.

REJECTED BY US, WHAT BECAME OF THEM?

The only possible means of trustworthy assay of many powerful drugs is a physiological test, and we make it in our Pharmacological Laboratory.

PARKE, DAVIS & CO.,

Home Offices and Laboratories, Detroit, Michigan.

in New York, Kansas City, Baltimore and New Orleans.

When writing, men tion the N. C. Medical Journal.

PUTREFACTIVE PROCESSES.

As an antiferment, to correct disorders of digestion, and to counteract the intestinal putrefactive processes in the summer diarrheas of children, LISTERINE possesses great advantage over other antiseptics in that it may be administered freely, being non-toxic, non-irritant and non-escharotic: furthermore, its genial compatibility with syrups, elixirs and other standard remedies of the *Materia Medica*, renders it an acceptable and efficient agent in the treatment of diseases produced by the fermentation of food, the decomposition of organic matter, the endo-development of fetid gases, and the presence or attack of low forms of microzoic life.

An interesting pamphlet relating to the treatment of diseases of this character may be had upon application to the manufacturers of LISTERINE.

LAMBERT PHARMACAL CO., SAINT LOUIS.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, JULY 5, 1899.

No. 1

Original Communications.

Progress in Serum Therapy.*

By CHAS. S. MANGUM, A. B., M. D.

Prof. of Physiology and Materia Medica University of North Carolina.

SINCE bacteriology became a science the most earnest efforts have been put forth by eminent medical men to isolate for every infectious disease some specific micro-organism; thus leading to a clearer understanding of many phenomena and a more rational treatment in numerous cases. To what extent these efforts have succeeded is abundantly shown by the marvelous growth and development of this comparatively recent science. Year by year new and important discoveries augment the invaluable fund of knowledge which has already been added to the literature of medicine, until we have now reached a point where it is fair to concede that the present generation will probably see every dreaded infectious disease accurately classified according to the micro-organism to which it owes its fatality. Parallel with this search for specific etiological factors there has been inaugurated during recent years in the physiological laboratories most comprehensive researches into the vast new fields of therapeutics opened by the better knowledge of the diversified activities and characteristics of bacteria. With the knowledge of toxins and toxalbumens came first the supposition and later the proof of the presence of the so-called anti-toxins, powerful immunizing principles, of unknown chemical composition, but undoubtedly possessing the power either to destroy the micro-organisms themselves or neutralize and render harmless the toxins elaborated by them. The profession is more or less familiar with the surprisingly successful results obtained by serum therapy, which though still in its infancy, has already been conceded to be one of the greatest therapeutic discoveries of the century, giving promise of new life to thousands. Launched from the laboratories in the early eighties it at first met with most discouraging results, and for years was under a cloud of disapproval, and this cloud has not yet been wholly removed.

*Read before the North Carolina Medical Society, Asheville meeting, 1899.

But its advocates persevered, and in 1894, with the introduction of Behring's anti-diphtheritic serum, it began a career which has lifted it steadily into favor, until now the beneficent nature of the treatment has been established, at *least* in part, beyond all doubt or question.

It is readily apparent to one watching the progress of the year in the treatment of diseased conditions, that the profession, whether consciously or unconsciously, is basing its principal hopes of material advancement in therapeutics upon the experiments now being made with different anti-toxic serums. So great is the interest aroused in these new remedies that a report of progress in therapeutics and materia medica practically resolves itself into a report of new serums of real or imaginary worth. It is evident that the tendency of the present time is to depreciate to a great extent those remedial measures by means of which we have been wont heretofore to strengthen and aid the natural functions, and hunt for a curative and immunizing serum for every poison that threatens the life of man. As is always the case with new theories, the claims of serum therapy will doubtless be pushed by enthusiasts to an almost ridiculous extreme. Then the pendulum will swing back and anti-toxins will take their place among other remedies upon our lists according to their proved efficiency. At this time the data are still too incomplete for one to gauge the future scope of this new method of treating infectious diseases, but encouraging progress has been made and for so short a time the results have been little short of marvelous. Whether serum therapy will broaden out and develop as rapidly as did the science with which it is so closely allied, or whether it will prove to be in a large measure a popular fad and of only a sadly limited sphere of usefulness, the near future will disclose, but the present gives promise of a future which will practically revolutionize our methods of treating all those diseases whose symptoms are due to the presence in the body of poisons of bacteriological origin.

To quote an eminent authority—"Serum therapy has merely entered the first stage of its development, and already the results are of much value. The mortality of diphtheria has been reduced from 40 to 8 per cent. ; the mortality of hydrophobia has shrunk at least from 16 to 1 per cent. ; the prognosis of tetanus has been deprived of much of its gloomy forebodings ; the cure of pneumonia, of tubercle, of erysipelas, and of septicæmia, is seemingly on the eve of being realized ; a complete demonstration has been obtained of the power of antivenins to prevent the toxic and lethal effects of venoms ; and the experimental data are surely being accumulated with a view to the discovery of antitoxic serums for the cure of yellow fever, the bubonic plague, Asiatic cholera, typhoid fever, cerebro-spinal meningitis, and even of leprosy and syphilis." The antitoxic treatment of diphtheria has made the most pronounced progress towards permanent establishment, being now almost universally accepted by the medical world. The experience of the past year has served to place this treatment in a position practically unassailable. The literature on this subject has grown to be almost voluminous, and statistics without end have been brought forward, showing such an enormous

decrease in the rate of mortality under the new treatment, that by many it would be considered a crime for any intelligent physician to refuse to employ this means of succor when it is so readily within his reach. Having accepted this serum as a remedial measure, it is now the aim of the profession to improve it and obviate any of the disadvantages which may attend its use. The resulting joint pains and swelling, and the cutaneous eruptions have been shown to be due to the use of an heterogeneous serum and not to the antitoxin as at first supposed. It is proposed to avoid these unpleasant effects by the use of highly concentrated serums, where the number of antitoxic units to each cubic centimeter of serum is very large, causing the volume of serum necessary to a dose to be small; and by thoroughly filtering this serum through an extremely fine filter, thus getting rid of all extraneous substances. It has been clearly demonstrated that the most useful sphere of diphtheria antitoxin is to be found in the realm of preventive medicine, as a prophylactic and immunizing agent. In close communities, as asylums, hospitals, schools, etc., where the gravest danger is to be feared in the development of secondary cases, the results have been most satisfactory, the disease, in many instances reported, having been effectually stamped out before it could gain a foothold. This in itself may be considered a great triumph. To obtain the best results from this serum as a curative measure it must be administered early in the course of the disease, before the ravages of the poison have become too great; the initial dose must be large, in some cases even amounting to as much as 3500 or 4000 units; the dose to children should be relatively much greater than that administered to adults, because the most virulent cases occur among children; and finally none of the usual precautionary measures should be neglected as aids to the treatment, simply on the ground that a specific should be expected to accomplish all things. The opportunities for testing the value of tetanus antitoxin have been far less numerous than in the case of diphtheria, because of the rare occurrence of this disease. The statistics are as yet wholly inadequate and insufficient in total number, and do not admit of a positive and definite report, though the mortality of tetanus has undoubtedly been reduced to a marked degree since the introduction of the antitoxic treatment. The effects of the serum are immediate in those cases where it is employed early, an amelioration of all the symptoms being at once apparent. It is claimed that when injected subcutaneously it only acts on the bacilli and toxins actually present in the blood, and does not readily come in contact with the toxins in the nervous system. Hence the necessity for a larger dose than that now given, and an earlier administration of it, so that the poison may be met in the blood current and conquered before it eludes the pursuing antitoxin.

As the lethal effects of this bacillus are chiefly exerted upon the nerve elements, some of the most enthusiastic advocates of the treatment have scorned all obstacles and injected the antitoxin directly into the brain substance itself. They report most beneficent results, but to the general practitioner the intra-cerebral injection of any serum, however potent, still savors

highly of fanaticism, and the statistics must necessarily be both more numerous and convincing than they now are, ere he may be expected to accept this procedure as altogether the proper thing to do.

To a much less degree than the two preceding, though steadily, Marmorek's antistreptococcus serum has gained favor during the past twelve months. As a remedy against erysipelas and septicæmia it has without question done much good, and has yielded most favorable results in many cases, though its action seems to be most unfortunately limited to strictly pure streptococcus infections; and since we do not possess the privilege of selecting the exact infection we would prefer in any given case but must accept mixed infections when they come, this limited action becomes a very serious stumbling block to the successful advancement of this new remedy. The serum is still unstable and unreliable, as well as often impure. Hence it must be handled with care, else it might prove a two-edged weapon and cause a double infection where immunity was sought.

It is still too soon to pronounce authoritatively upon the value of streptococcus serums, but their use has been so productive of successively better results, that it is well to maintain an optimistic view, until experiments have brought out more satisfactorily the details as to methods of preparation, preservation and application. In December the American Gynecological Society appointed a committee to investigate anti-streptococcus serums and report in May. The publishing of this report is now awaited with much interest.

Other anti-toxins for the cure of pneumonia, cholera, the bubonic plague, typhoid fever, yellow fever, tuberculosis and snake venom, are passing through the experimental stage with varying degrees of success. But their place is still in the laboratory, and in the hands of the most careful observer, nor should they be hysterically thrust upon the general profession until the proof of their potency and value as therapeutic agents has been established beyond all reasonable doubt. They represent, however, the first steps taken in a field of almost boundless extent, which holds truths that medical science will yet convert into blessings of priceless value to mankind.

A brief summation of the present position of serum therapy may be made as follows :

In diphtheria alone has it proved a complete success, though it has been very efficient in both rabies and tetanus, and to a lesser degree in erysipelas and septicæmia. The evidence is strongly in favor of an early demonstration of the power of anti-toxins to protect against cholera and the plague, and probably also against snake venom. Work with all other serums is yet purely in an experimental stage, and nothing definite or satisfactory has so far been accomplished.

There are two great obstacles to the general introduction and use of anti-toxic serums. One is the large bulk which it is necessary to inject in order to obtain a sufficient number of anti-toxic units; the other is the enormous expense of preparation. The first is being rapidly removed by the

preparation of highly concentrated serums by inoculation with the most virulent cultures, the ideal aimed at being of course the isolation and complete separation of the anti-toxic principle from the serum, and its subsequent injection in a sterilized solution. The expense of preparation is still a most serious problem, and will be likely to place this means of preserving life entirely out of the reach of many classes of patients for years to come. A case is reported in which over one hundred dollars worth of tetanus anti-toxin was used within a fortnight. The treatment was a success, the man recovered, and was no doubt considered a more valuable citizen after the experience than before.

In "*Science*" of March 10th, 1899, may be found a report of experiments now being carried out in Munich in connection with enzymes as remedies in infectious diseases. It is a well known fact that the "bacillus pyocyaneus" when injected has the power to counteract the effects of the bacillus of anthrax. It has been demonstrated, as this report goes on to show, that certain kinds of bacteria (bacillus pyocyaneus) produce enzymes which not only dissolve these bacteria themselves, but other microbes as well, and the claim is now made that the substances which we have termed antitoxins, and which lead to recovery from infectious diseases, and produce immunity from them, belong to the enzymes. The authors of these experiments claim to have succeeded in obtaining enzymes which combined with an animal protein may be transformed into an immunizing substance, which will be both durable and thoroughly satisfactory. As yet the experiments are incomplete, and the results have not been published in full, but the "time seems near at hand when the treatment with serum will be replaced by a cheaper and simpler method."

Ectopic Pregnancy.*

By J. W. LONG, M. D., Salisbury, N. C.

DEFINITION.

THE term ectopic pregnancy is preferable to that of extra-uterine pregnancy, because (1) the word ectopic means *out of place*, and in these cases the product of conception is out of the normal place, (2) it is claimed that in one variety (the so-called interstitial) the fetus actually develops within the uterine tissue; therefore, can hardly be called extra-uterine.

PHYSIOLOGY.

It may be stated briefly that conception normally occurs in the fallopian tube. This statement is contrary to the views held by earlier obstetric writers, who supposed that fertilization of the ovum occurred in the upper part of the uterus; the tubal cilia having wafted the ovum downward and the

*Read at the forty-sixth meeting of the North Carolina Medical Society, Asheville, June 1st, 1899

uterine cilia the spermatozoa upward. Hofmeier has shown by recent observations that the current of the uterine cilia is like the tubal current from above downward. Again, in the lower animals, spermatazoa have been observed time and again to make their way up into the tube and have even been seen swimming in the peritoneal fluid on the surface of the ovary, where, as Kelly says, they lie in wait for the ovum.

These facts, together with the additional knowledge that spermatazoa may retain their vitality for a long time after copulation, even as much as six months in the female bat and, according to Dührssen, as much as three and one-half weeks in woman, certainly tend to show that fecundation normally occurs in the tube.

Therefore, it may be confidently stated that an ectopic pregnancy is a pregnancy in which the normal downward passage of the fertilized ovum through the tube has been arrested.

CAUSES.

In a general way it may be stated that the arrest may be due to :

1. Obstacles within the lumen of the tube.
2. Some disease or abnormality of the tubal wall.
3. Factors external to the tube, encroaching upon or obliterating its lumen.

Under the first head may be mentioned intra-tubal growth and constrictions ; under the second, salpingitis, persistence of fetal type, multiple ostiæ, etc. ; while the third division embraces tumors, adhesions, twists, bends, and in fact, anything tending to hinder the free passage of the fertilized ovum along the lumen of the tube.

PATHOLOGY.

As this is a clinical paper, the pathology may be dealt with briefly. It should be noted that while the placenta develops at the abnormal location of the fetus, it is only the fetal portion that does so, while the maternal portion of the placenta develops in the uterus. It is this maternal portion that at some time during the progress of the case is cast off and often leads the obstetrician to believe that an abortion has occurred. At the point along the tube where the impregnated ovum may find lodgment there begins at once an active congestion, resulting in the thickening of the surrounding tissues and the formation of the fetal sac. Following the primary thickening there occurs thinning and stretching of the fetal sac at its weakest and most unprotected point. This is due to the rapid growth of the ovum or to hemorrhage within the sac. The outcome of the extreme thinning and softening of the tissues is rupture of the sac, allowing the contents to escape either into the abdominal cavity or between the folds of the broad ligament. This usually occurs from the eighth to the twelfth week. Exceptions to this statement may be noted. It is barely possible for the pregnancy to go to term without rupture of the tube. When rupture does occur the placenta may retain its hold in the tube while the fetus escapes into the peritoneal cavity, or the rup-

ture may occur between the folds of the broad ligament and even be followed later by a secondary rupture into the peritoneal cavity.

The limitations of this occasion forbid even a mention of all the pathological freaks that may take place. The most important feature of a rupture is the *hemorrhage*. But for the hemorrhage and the subsequent infection, the rupture of an ectopic fetation sac would probably cause very little disturbance in the woman's abdomen. If the hemorrhage is at all profuse, the woman is at once precipitated into a profound shock and even death. The hemorrhage takes place in the direction of the rupture; either into the peritoneal cavity or between the folds of the broad ligament. If in the latter place, it is limited by the resistance of the tissues, therefore not so dangerous as when it escapes into the peritoneal cavity. If the woman survives the first shock of a peritoneal hemorrhage, adhesions quickly form, being nature's supreme effort to save the peritoneum from further invasion. Even after adhesions have formed, hemorrhage may continue or recur, accompanied by shock, heart failure, etc.

It is readily understood how the conditions presented by the rupture and hemorrhage offer a favorable nidus for the development of infection, and as a matter of fact, this usually occurs in those cases that do not immediately succumb. As a result of the infection, we have the blood clots breaking down into pus, forming a so-called pelvic abscess, or the infection may be more wide-spread, producing general peritonitis and septicæmia. In either event death is likely to terminate the case unless surgical measures are resorted to.

In the general wreck the fetus is, as a rule, lost sight of; it is either absorbed by that great lymphatic gland, the peritoneum, or is broken down and lost in the suppurating mass. However, the fetus may escape with its life and go on to term either as an intra or extra-peritoneal pregnancy; or life having ceased, be converted into an encysted mass of lithopedion.

CLINICAL HISTORY AND SYMPTOMS.

It is believed that a tubal pregnancy is more apt to occur after a period of sterility. A woman sterile for some years is seized with the ordinary symptoms of pregnancy; often, in addition, there is a different or "queer feeling," as she expresses it. Perhaps the last period, instead of being entirely absent, was a mere dribble. She will probably miss the next period and at about the eighth or ninth week will notice her linens slightly stained, and there will pass from the uterus "some pieces of flesh" resembling the products of an abortion; indeed, they are pieces of the maternal portion of the placenta. Rupture of the fetal sac often occurs about this time. This may be precipitated by any act of violence, as a misstep or blow. One of my patients ruptured her tubal pregnancy by a sneeze. The prominent symptoms accompanying a rupture are pain, shock, collapse. If the patient survives the primary shock and hemorrhage, she will suffer all the horrors of peritonitis and sepsis. One patient that I saw told me that she suffered

so fearfully that she got down on the floor and tried to butt her brains out against the wall.

PHYSICAL SIGNS AND DIAGNOSIS.

A physical examination prior to rupture will reveal pulsating tumor occupying the situation of one of the tubes. The presence of such a tumor with the symptoms of pregnancy should determine one to operate. After rupture, the diagnosis is still more easy because of the history; first, of the symptoms of pregnancy, second, of the shock and collapse. In doubtful cases, err on the side of mercy, and operate.

TREATMENT.

Prior to the fifth month or the period of viability, whether before rupture or after, there can be but one rational treatment, and that is surgical. Among surgeons, this question is beyond cavil. After the fifth month, the interests of the child demand that we wait, but do not cease to watch and be ready to operate at a moment's notice.

OPERATION.

The method of operation will be determined by (1) the conditions present, and (2) the predilections of the operator.

Briefly, my choice in all ruptured and newly ruptured cases is to operate through the abdomen; in cases that have been ruptured some days or weeks the best route is through the vagina, as a rule.

REPORT OF CASES.

My experience with these cases has not been large, having seen only six cases, so far as I know. I add this qualification because I am convinced that this condition, like appendicitis, often passes unrecognized. I append the report of only a few cases by way of illustration.

CASE I. Mrs. M., Age, about 19, the wife of a member of one of our graduating class, came into my office with her husband, who wished me to examine her. She had missed one period, and at the time of the second one began to dribble and passed several pieces of flesh-like tissue. She had complained of constant pain in the right pelvic region for several weeks. On examination I found the uterus slightly enlarged, while to the right was a pulsating mass the size of a small orange. The tumor was freely movable and I expressed the opinion that it was probably an ectopic pregnancy, and advised an immediate operation. I had just lectured on the subject of ectopic pregnancy, and this young doctor and his wife had been reading up the subject, so they readily acquiesced to my advice. The same day the lady was taken to the Old Dominion Hospital, where I operated on her. After being put under an anæsthesia, she was examined by my colleague, Dr. Geo. Ben. Johnston, who agreed in the probability of an ectopic pregnancy and the indications for an operation; he also kindly assisted me in the operation. When the abdomen was opened, there were found several ounces of fresh blood in the pelvis. The right ovary was the site of a newly rup-

tured tumor containing blood clots. No fetus or definitely formed placenta was seen, nor was the tube involved. The rupture must have occurred between the time I saw her in my office in the morning, and the time when the abdomen was opened. It is probable that the sac was ruptured during the examination under anæsthesia, as both Dr. Johnston and myself palpated the parts bi-manually.

It may be objected that this case was not certainly one of ectopic pregnancy. I grant the exception, but it must be admitted that the history of a newly married woman, amenorrhœa, the recent pain and discomfort in the right side, the gastric disturbance, the dribble, the passage of flesh like-lumps, the tumor, the fresh blood in the abdomen—all point to an ectopic pregnancy.

CASE II. Mrs. G. Sterile several years; had missed two periods. In the ninth week she was sitting at the breakfast table when she sneezed and was at once taken with a violent pain in the left side of the pelvis and fell to the floor greatly shocked. My friend, Prof. C. A. Blanton, was called to see her, and later at his request I saw the case with him. At time of the consultation a tender mass could be felt filling the left pelvis. On opening the abdomen we found the left tube to be the site of an ectopic pregnancy. The fetus was not seen, but the placenta was removed from the tube and later the tube itself. The rupture had occurred on the anterior surface of the tube, and the hemorrhage consequently had escaped into the anterior segment of the pelvis above the bladder, and not into the cul-de-sac.

CASE III. Just after going to my present location, I was asked by my associate, Dr. John Whitehead, to see a colored woman, the mother of several children, who, after missing three periods, was seized with an intense abdominal pain, shock, etc. The woman had been in the throes of peritonitis three months when first seen by Dr. Whitehead. The next day he asked me to see the case with him. A mass was found filling the entire pelvis and extending half way up to the umbilicus. The woman was so emaciated and in such extremis that we feared to give much anæsthetic, so Dr. Whitehead cautiously administered a very little, while I quickly made an incision in the posterior vaginal fornix, opening into a large septic cavity full of broken down blood clots, detritus and pus. Free drainage soon brought this woman from a mere skeleton to 160 pounds, her usual weight.

CASE IV. A western lady recently moved to a North Carolina town, having been several years sterile, missed two periods, and becoming anxious about herself, introduced a pencil into her uterus. Shortly afterwards, uterine pains and flow set up. These continued for a week, when she was suddenly seized with an agonizing pelvic pain, precipitating her into a profound shock. Dr. Stanton, of High Point, was attending her, and the woman having confessed the use of a pencil, he suspected a ruptured uterus. And he certainly had good reasons for thinking so. The woman rallied after a few hours and the next day had another attack. On the fifth day I was asked to see the case with Dr. Stanton and Dr. Scott of Mebane. I found the woman highly septic, delirious, vomiting and greatly

prostrated; temperature ranging from 102° to 104° ; pulse frequent and feeble; abdomen tympanitic and tender. On bi-manual palpation the pelvis and half the abdomen was found to be filled with a very tender mass, while the uterus was pushed upward and well to the front. The case was puzzling, but I expressed the opinion that it was one of ruptured ectopic pregnancy, in spite of the pencil episode. Drs. Stanton and Scott concurring, we lifted her gently onto a cot, placed the cot in the baggage car and took her to Salisbury, where she was operated on immediately on our arrival at the Sanatorium. A vaginal incision opened at once into an immense cavity filled with blood. Putting in two fingers I brought forth the fetus and more than a half gallon of blood clots. The adherent right tube and ovary with the placenta attached were loosened up and drawn through the vaginal opening, a ligature was placed around the tube close to the cornua and the right appendages cut away. A rubber T-drain was placed into the cavity and stitched to the side of the incision, while plain gauze was firmly packed into the cavity. This woman was in extremis, yet in spite of the widespread peritonitis and sepsis she progressed steadily to a perfect convalescence.

I have operated on two other cases—one ruptured and the other unruptured, but I will not weary you with the details of them; suffice it to say, that all my cases have recovered.

Report of a Case of Tumor of the Brain, Symptomatically Relieved by Exploratory Operation Upon the Skull.*

BY WILLIAM BROADDUS PRITCHARD, M.D., AND JNO. A. WYETH, M.D., of New York

TUMORS of the brain constitute a comparatively small, but an exceedingly interesting and important group among the diseases to which human flesh is heir. Within the past ten years, a period devoted chiefly to the observation and study of affections of the nervous system and the mind, I have personally seen only fifteen cases in which such a diagnosis was tenable, with any certainty, and it is quite possible that autopsy would have failed to confirm such diagnosis in an appreciable percentage of this total. In eight of these cases, however, in which either autopsy or operation afforded opportunity for confirmation the tumor was found. The interest attaching to the subject, while entrancing, is unfortunately rather pedagogic than practical. I do not believe that this is necessarily so, however, and one object and the chief one, in presenting the subject to your attention is that of aiding in establishing the converse of this proposition. There is no single problem in clinical neurology so protean in its symptomatic aspects, so fascinating in its attractiveness, so uncertain in its developmental possibilities,

*A Paper read before the North Carolina State Medical Society 46th Annual Meeting, held at Asheville, N. C., June 1st, '99.

and finally so gratifying to the student enthusiast in its irrefutable demonstration, as that of tumor within the cranial cavity and of the cerebral structures. The full and intelligent study of this condition involves a masterly grasp of the entire subject of cerebral anatomy, physiology and localization, as well as thorough familiarity with the recorded facts of empirical experience. Even this degree of knowledge is insufficient in the absence of common sense, since the importance of the personal equation of the patient in intelligence, education, environment and heredity enters largely as a factor in diagnosis. The importance of the subject scarcely needs emphasis. Tumors of the brain are essentially fatal. The *vis medicatrix naturæ*, that most potent ally of the physician in ordinary disease, is as helpless here as impotence itself. The fate of the victim of tumor of the brain, if nature alone be depended upon, is no less desperate than that embodied in the inscription which marked the portals of Dante's *Inferno*, "Leave hope behind all ye who enter here." The utmost attainments of medical art are almost equally futile. I have yet to learn of an authentic case of spontaneous or medically induced recovery from [intracranial tumor, except possibly cysts. Gunma I exclude. The stimulus to effort which is embodied in this statement is, or at least should be, all powerful. To cope with disease successfully, with the assistance of nature, represents a degree of usefulness which should not be despised. To cope successfully with disease unaided, is self evidently the greater accomplishment and represents the highest possibilities of the art. The ultimate and ideal aim of medicine is mastery of disease regardless of coadjutant factors. For the present he is a fool who disregards any source of help. To aid in saving life is worthy, to save life should be the very acme of our effort.

I shall not burden you with a resume of the abstract clinical facts of brain tumor. To cover the subject adequately would necessitate a paper far beyond the time limit permitted by the occasion. The subject is exhaustively considered in many standard text books and monographs, and is probably familiar to my audience. Many if not most of the clinical facts correlated to the subject are illustrated in the case to which I desire to call your attention. I beg your indulgence in advance for a case history which almost necessarily may appear prolix.

The patient, P. L. B., was first seen by me November 20th, 1897, at his home in Asheville, N. C., in consultation with my friend Dr. H. B. Weaver. The object of the consultation was to determine the nature of an epilepsy from which the patient suffered. The following history was obtained: P. L. B., male, aged 30, married, merchant by occupation, family history negative. Personal history free from any record of serious illness or injury up to 1882. During the Spring of 1882 patient was suddenly attacked with a fulminant and severe form of cerebro-spinal meningitis. His occupation at that time was that of a farmer in the mountainous region of Western North Carolina, a locality subject to recurring epidemics of cerebro-spinal meningitis. His attack was of some five or six weeks' duration, recovery being apparently complete, the disease leaving no nervous sequelæ. Six

months later the patient suffered from his first (so far as known) epileptic attack, which occurred at night, without warning or assignable exciting cause. This convulsion was general in distribution and of comparatively severe type, the tongue being bitten. Subsequently other attacks followed, always at night (two diurnal attacks only in seven years), always general, always without aura. His condition remained practically the same up to 1889, except that the average number of seizures increased from two or three to five or six a month, the paroxysms preserving the same characteristics. In 1889 he moved his residence to Asheville and changed his occupation from farmer to merchant. For three years subsequently and without other assignable cause than that of change of residence and occupation, he remained absolutely free from these attacks, his health being, to quote his own language, "perfect." In 1892, without any known cause, the epilepsy recurred, but in an entirely different form. While an occasional nocturnal attack would occur, the majority of the seizures were diurnal. Instead of being general and severe as formerly the attacks were lighter and often unilateral and occasionally without loss of consciousness. Very many of these later attacks were preceded by an aura consisting of a strange and indescribable sensation in the left side (leg and arm) and with an initial motor spasm or signal symptom in the left foot. In exceptional instances this signal symptom was limited to a tonic rigidity of the toes, chiefly the great toe. Quite often the entire seizure would consist of the sudden aura described, with a succeeding tonic rigidity of the foot muscles. More frequently the spasm would extend quickly up the leg, thence to the arm of the same side, next to the left face, ending in unconsciousness and sometimes generalized tonic and clonic movements of the muscles of the entire body. Usually the interval between the aura and the spasm permitted sufficient preparation to prevent injury from a fall. Occasionally the upward extension of the spasm, beginning in the foot, could be prevented by pressing the foot firmly against some object or by grasping in constriction the thigh of the same side. These paroxysms varied considerably in frequency. Eight or ten or even more might occur in a day. On the other hand, he would sometimes remain for several days perhaps, free from attacks. During the interval he suffered greatly from severe headaches associated with vertigo and occasional though infrequent sudden vomiting. The headaches at times were said to have been agonizing. Minor occasional changes in temperament and emotional stability were noted, but intellectual processes proper are said to have remained unimpaired. During the summer of 1897 the patient noticed a gradually developing weakness of the left leg and arm which slowly but steadily increased. At about the same time he began to notice peculiar disturbances of vision. He would suddenly become totally blind. "I would have to stand still for a few minutes, when my sight would just as suddenly return," to quote the patient. An extreme polydipsia developed, as much as two gallons of water being often consumed in a day. There was of course a corresponding polyuria. There were no other subjec-

tive symptoms except numerous inconstant and very variable paresthesia of the left side.

PHYSICAL EXAMINATION.—The patient appeared a well developed and fairly nourished man of about the age given. Mentally I observed no variation from the normal. Memory, reason and judgment seemed unimpaired. The mental reflexes were quite normally active. I observed no emotional instability whatever. Motor and sensory speech were normal. Taking the cranial nerves in numerical order, the sense of smell was not affected. In testing vision I found a fair perception of light with a bare perception of form. Ophthalmoscopically the fundi showed well advanced double optic neuritis. The ophthalmoscopic findings were established by Dr. Taylor, of Asheville, and later by Dr. Marple of New York. The extrinsic muscles of the eye (3rd, 4th and 6th) were normal and the eye was moved freely in all directions. There was no sensory impairment in the area supplied by the fifth. Innervation of the facial muscles was about equal on the two sides and there was no asymmetry. The auditory nerve was intact on both sides. There was no impairment of taste. The vagus was not affected. The tongue was projected without deviation. Examination of the upper extremities showed decided ataxia of the left arm and hand. Forced flexion and extension of the muscles of the arm and forearm showed distinct weakness of the left as compared with the right. Left hand grasp by dynamometer, 28; Rt: 70. No atrophy. Slight tremor of *right* hand and arm on extension. Tactile, pain and temperature sense, normal and equal on the two sides. Muscular sense impaired on the left by comparison with the right. Wrist and triceps reflexes exaggerated on the left. Lower extremities: gait hemiplegic with drag of left foot. No contractures but slight spasticity of left leg. Flexors and extensors of left leg, ankle and thigh distinctly weaker than right. No Romberg present, but was unable to stand on left leg alone. Left knee jerk quite actively exaggerated and clonus present on left side. No atrophy. No sensory impairment was demonstrated at this time. The tests employed were however not at all elaborate or delicate in detail. There were no rectal or vesical symptoms. A summary of the facts related, obtained from the history and a personal examination, led promptly to the diagnosis of brain tumor, the symptoms constituting an almost classical group. It seemed equally legitimate, basing the conclusion upon the nearly always constant aura of paresthesia of the left leg and arm and of a signal symptom or initial motor spasm affecting the left foot and leg, to assume that the tumor was located in the upper third of the Rolandic region of the right side. The frequent occurrence of spasms limited to the foot alone and sometimes to the toes, pointed to the post central rather than the præ Rolandic area. The sensory aura and the disturbance of muscular sense in the upper extremity, together with the apparent non-involvement of mentality, at least in its higher spheres, seemed consistent with and indeed confirmatory of this view. The absence of family or personal tuberculosis or syphilis and of cancerous tendencies, together with the empirically known fact that gliomatous growths are next

perhaps in frequency, served as a basis for a presumptive diagnosis, from the pathological standpoint, of glioma or gliosarcoma. The etiological relationship of the preceding cerebro-spinal meningitis offered many conjectural possibilities but nothing positive and little if any precedent. The prognosis was necessarily pessimistic and in extreme degree, with one modifying possibility, and one alone. Assuming the diagnosis to be correct, the one chance for life lay in the direction of surgical interference. Following a time-honored precedent, the value of which I have confirmed through personal experience, I advised that the patient be put upon steadily and rapidly increasing doses of potassium iodide. If after reaching a daily dose of 300 grains, attainable in a month or six weeks by gradual increase, no improvement should result, I advised that the patient be sent on to New York, placed in the Polyclinic Hospital, there to be watched by trained attendants under my supervision, and if the symptoms observed confirmed the diagnosis already made, then open the brain and if possible remove the tumor. Should death occur from operation, it would be only an anticipation by a few weeks or months of a fate which was inevitable, and the patient would have the benefit of a legitimate euthanasia. My advice was followed to the letter. The iodides proving useless, the patient came to New York accompanied by Dr. Weaver and was admitted to the Polyclinic Hospital. Within less than a week the history as already given was confirmed. The symptoms had meantime progressed markedly. The patient was totally blind. Beginning atrophy had succeeded the neuritis. He was completely helpless, the hemiplegia having become almost absolute. The spasms had increased, as many as twenty or more occurring sometimes daily. The headache was excruciating and continuous. Insomnia added its agonies to the picture. The patient begged for death and expressed himself as more than willing to take any risks involved in surgical interference. Preliminary to the operation I made a further and more elaborate and exact examination of the patient. In addition to the demonstration of the symptoms already mentioned, which differed from former observations only in degree, I noted the following exceedingly interesting sensory and other phenomena. In the lower extremity (the leg) there was present decided defect of tactile sense. He was unable to distinguish cotton or cloth from wood or the touch of the finger. When touched at more than one point he was totally unable to determine the number of points of contact. A peculiar ataxia or allocheiria of tactile perception was manifest. When touched on the left leg he would say it was the right. When touched on the left foot he would refer the tactile impression to the knee or thigh perhaps. This was true also of pain sense. He was unable to differentiate differences in the degree of pressure or weight upon the leg and was totally unable to duplicate accurately with the right leg or foot the various positions into which I put the left leg. At this time a very marked and aggravated degree of tremor was noticed on the sound side (the right) on any muscular effort involving extension of leg or arm. The scalp having been shaved, several observations were made as to difference in sur-

face temperature upon the two sides of the skull. The results were not entirely negative, but they did not admit of any positive conclusions. A distinct and constant difference was, however, plainly evident in the percussion note over the parietal region of the two sides, decided and constant increase of dullness being noted over the right as compared with the left. This difference was demonstrated upon several occasions and was invariably present. These symptoms were construed as confirming the localizing diagnosis placing the tumor at or beneath the post-Rolandic or post-central convolution on the right side in its posterior and lower segments adjacent to and probably involving (from the sensory symptoms) the supra marginal and angular gyri. I hesitated in an opinion as to a cortical or subcortical localization for obvious reasons, but leaned rather to the subcortical in view of the fact that purely mental processes were absolutely intact. That the cortex was *involved* I felt no doubt, and I also believed that the tumor was accessible surgically and probably removable. On January 20th Dr. Wyeth operated.

REPORT OF THE OPERATION.

On the 20th of January, 1898, at the New York Polyclinic Medical School and Hospital, the following operation was performed on Mr. B., of Asheville, N. C. :

A diagnosis of a tumor near the right fissure of Rolando, at the lower border of the upper third, posteriorly, had been made by Dr. Pritchard, who had carefully studied the case from the standpoint of the neurologist. A large horseshoe-shaped incision was made through the scalp down to the cranium. The convexity of this incision was near the median line of the skull and extended toward the temporo-parietal suture about four inches, there being about three inches between the sides of the incision. The bone was exposed by separating the scalp on either side of the line of incision for about a quarter of an inch, leaving it as closely adherent to the bony flap to be elevated as was possible. With a small sharp chisel the bone was now furrowed, and with the aid of the De Vilbiss rongeur the bone was entirely cut through in line with the primary incision. The completion of the operation was postponed, as is my custom, to the following day. The following day this flap of bone was fractured across the points between the ends of the incision, and with the adherent scalp was turned down over the patient's ear. The dura mater was incised in the same line as the original flap and this was also turned down and the brain exposed. By careful exploration with the dull end of a long-hagedorn needle the tumor could be distinctly felt, measuring more than two inches transversely and so deep-seated and so far from the surface that its removal was deemed unjustifiable. It was found impossible to stitch the dural flap in position as the brain bulged through the opening, and as this membrane had been worn to extreme thinness by the long-continued pressure of the brain, the sutures would not hold.

The trap door of bone and adhering scalp was restored about to its original position, leaving one-half inch of room for relief of pressure.

The patient did well after the operation, despite the development of a *fungus cerebri*. JOHN WYETH.

Several interesting problems present themselves in connection with this case. I shall confine myself, lest I trespass too far upon a tolerance taxed, I fear, already to the limits of courteous endurance, to two aspects alone. To what extent is surgical interference indicated or permissible in tumor of the brain? What is the explanation of the symptomatic relief obtained in this case, in which the tumor was not removed? The two problems are correlated to such a degree as will permit of their joint consideration. The facts of experience, personal and impersonal, justify, I believe, the acceptance of the following propositions: Tumor of the brain per se is essentially fatal regardless of pathological type or location. Possible and rare exceptions are tubercular and cystic neoplasms. Syphilitic gummata should not be considered a variety of brain tumor. Surgical interference is the only hope and is not only indicated but imperatively demanded. In a small proportion of cases, depending upon location and pathological type, surgical procedure may prove curative. Ferrier states this proportion as 13 per cent., which seems rather optimistic. In many cases, Ferrier says more than 50 per cent., surgical interference offers the probability—indeed a reasonable certainty—of symptomatic relief and prolongation of life. Results here also vary in degree, though less so, with the factors of pathogenesis and locality. In all cases, regardless of pathological variety, localization or multiplicity of lesions, osteoplastic operations upon the skull are not only permissible, but indicated, since they offer the only hope and under proper precautions and technique, exploratory entrance of the skull involves but little danger to life per se. Such operations should, by the way, be always primarily exploratory.

With regard to the second problem, theories rather than facts must necessarily enter into the answer. In the case presented the tumor was not removed and yet the patient (who I feel confident would have been dead long ago but for the operation) is not only alive but is and has been free from headaches, epilepsy and all other irritative symptoms for more than a year, has recovered his general health and strength and is able to make a living. To what does he owe his improvement?

The results in this case are not unique, many similar instances having been recorded, notably several which were reported at the meeting of the British Medical Association, in Edinburgh, just a year ago, by Horsley, Waterhouse and others, and by Kramer of Cincinnati. Irritative symptoms may be and often are due in intracranial tumor to increased intracranial pressure. The relief of such pressure by opening up the skull suggests an explanation. I cannot believe, however, that such relief would be either permanent or prolonged. Our patient eighteen months after the operation is free from irritative symptoms.

Another theory suggests itself: The operative field it will be remembered, was subsequently filled with an enormous hernia cerebri. The major part of this hernia eventually sloughed off. Why is it not possible

and indeed probable that the tumor, following the law of all neoplasms, which is growth in the direction of least resistance, should have grown out of the cranial cavity with the hernia and been sloughed off with it? I believe this theory to be additionally probable if, as assumed, the growth was gliomatous. There is some precedent in support of this theory. My friend Dr. Weiner of New York, in his report of a somewhat similar case with enormous hernia cerebri following the operation, found on microscopical examination of the hernia tissue that it was chiefly composed of cancerous tumor elements. Still another theory has been advanced, to the effect that surgical trauma is sometimes pathologically alterative, so to speak, as for example in the effects from scarifying ulcers. This last hypothesis seems to me to be least entitled to credence and I do not offer it with any personal endorsement whatever.

A Quaint old book, the *Memoirs of Louise Bourgeois*, the midwife who assisted at the birth of the children of "Henry of Navarre," about 1600, contains the first description of the treatment of placenta previa, as she describes her practice of interfering whenever the hemorrhage threatens a fatal termination, the uterus gaping without pain, from the relaxation of extreme weakness, "watching a woman as a cat watches a mouse, and fighting for her with eye and finger"—"breaking into the uterus as one would into a house on fire." She mentions a child "born without a seat," but healthy, the feces being discharged through the vagina. She advised against an operation, as she "was sure her friend, the lamented Monsieur Paré would not have operated in this case," observing that "if women who seek to entice married men from the path of virtue were built this way, many wives would be happier than they are now."

Inconsistent Philozoists.—In his address at the opening of the physiological and pathological laboratories at Belfast, Ireland, Lord Lister took occasion to give some illustrations, drawn from practice, of the value of pathological research. "There are people," he said, "who do not object to eating a mutton chop—people who do not even object to shooting a pheasant with a considerable chance that it may be only wounded and may have to die after lingering in pain, unable to obtain its proper nutriment—and yet who consider it something monstrous to introduce under the skin of a guinea-pig a little inoculation of some microbe to ascertain its action. These seem to me to be most inconsistent views. If these experiments upon the lower animals were made for the mere sport of the thing, they should be indeed deprecated and decried; but if they are made with the wholly noble object of not only increasing human knowledge, but also of diminishing human suffering, then I hold that such investigations are deserving of all praise. Those little know who lightly speak on these matters how much self-denial is required in the prosecution of such researches when they are conducted, as indeed they always are, as far as I am aware, with the object of establishing new truth."—*Popular Science Monthly*.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.
Editors and Proprietors.

W. H. WAKEFIELD, M. D.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.
J. HOWELL WAY, M. D., Waynesville, N. C.
J. ALLISON HODGES, M. D., Richmond, Va.
S. WESTRY BATTLE, M. D., Asheville, N. C.
GEO. G. THOMAS, M. D., Wilmington, N. C.

R. L. PAYNE, M. D., Norfolk, Va.
H. S. LOTT, M. D., Winston, N. C.
J. W. LONG, M. D., Salisbury, N. C.
H. A. ROYSTER, M. D., Raleigh, N. C.
ALBERT ANDERSON, M. D., Wilson, N. C.

J. F. MONROE, M. D., Davidson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

AN EXAMPLE FOR MUNICIPAL AUTHORITIES.

The city prison of Wilmington is in a very unsanitary condition, being located in the basement of the city hall. There is no provision for the separation of the races. The present board of aldermen have been discussing the matter, and estimates for remodelling the prison give the cost at several thousand dollars. The board were unwilling to allow such a large sum, at the same time deploring existing conditions. A report of the proceedings of the meeting of the board in the *Morning Star* says: "Mayor Waddell reiterated the great necessity for better accommodations in view of the approach of the summer season, declaring that in its present condition the city prison is a menace to the health of those confined therein, and that in case a death should occur traceable to this origin, the city would be liable for damages. He said that before he would sentence prisoners in the future to terms in the city prison, if he could not get permission for their imprisonment in the county jail, he would turn them loose on the community rather than confine them inhumanely in a dungeon already condemned by the city and county physicians.

Mayor Waddell is a leading lawyer of Wilmington, and fully appreciates the duty of the city to look after the health even of prisoners. His vigorous stand and his support of the opinion of the superintendent of health induced the board to take further action in the matter, with the probability that the condition will soon be improved. The most encouraging part of the whole matter, however, is the increasing weight the opinion of the medical profession on sanitary questions has upon the intelligent classes. With such

support from those in authority as is given by Wilmington's able mayor, much could soon be done to improve the health and increase the longevity of our people.

ANTISTREPTOCOCCIC SERUM IN PUERPERAL SEPSIS.—At the 24th Annual meeting of the American Gynæcological Society, Dr. J. W. Williams, chairman of the committee appointed to investigate the serum treatment of puerperal sepsis, made a formal report. He stated that the report was a preliminary contribution, based upon a review of the literature on the subject, as the experiments undertaken by the members of the committee had not been completed. In 1895 Marmorck had presented his first communication, in which he stated that the virulence of streptococci could be preserved by cultivating them in a certain medium composed of bouillon and human blood serum. Shortly afterwards he had made a second report of 46 cases of erysipelas treated by his serum with most satisfactory results, and 16 cases of puerperal sepsis treated in a similar manner, seven ending in recovery.

In 1896, forty additional cases of puerperal fever were reported by Charpentier, of which only 24 recovered—a mortality of 35.25 per cent. Of these cases there were 16 in which a streptococci infection had been demonstrated, and of this number 7 had died. As a result Charpentier, in common with most physicians, had been led to the conclusion that the method was of slight value.

The committee had collected 354 cases in which the serum had been used, with a mortality of 20.6 per cent. Of 70 cases treated by French and German observers, where a streptococci infection was shown, 24 had been fatal. In a series of 242 cases in which no bacteriological examination was made, the death rate was 14 per cent. The committee assumed that this low mortality was due to the fact that many of this group of cases were not instances of streptococci infection and would probably have recovered in any case. Moreover, the work of the bacteriologist seemed to show that there was a marked difference among the groups of streptococci, which could not at present be differentiated and this was one cause of contradictory results. A serum effective against one class of infection was powerless against another, and as it was practically impossible to identify the varieties, the outlook for the antistreptococci serum treatment was very discouraging. About the only positive knowledge resulting from investigation of the subject, was the fact that was possible greatly to increase the virulence of streptococci.

Aseptic Duelling.—Acting as principal in a French "affair of honor" has always been regarded as one of the least hazardous of occupations, but now it is rendered still safer by means of antisepsis. Since accidents may always happen, a combatant occasionally receives a scratch, so it is necessary to insure against the introduction of pathogenic microbes. At a recent encounter, brought about to decide whether Hamlet was fat or thin, it is reported that whenever the weapons used touched the ground the combat was immediately suspended until the blades could be passed through the flame of an alcohol lamp, in order to destroy any tetanus germs that might possibly be so taken on the tip of the sword.—*Medical Record*.

News and Items.

Merck's Archives offers prizes, aggregating \$500, for the best ten papers on a remedy or therapeutic management of a disease.

Cure for Tuberculosis.—Dr. Armond Gautier, professor of chemistry in the School of Medicine, Paris, announces the successful treatment of tuberculosis by injections of solution of sodium of cacodylate.

Rectal Enemata to Relieve False Labor Pains.—Burns, in the *Journal of the American Medical Association*, highly recommends a rectal enema of four quarts of water for the relief of false labor pains, followed by the hypodermic injection of $\frac{1}{4}$ gr. of morphia sulphate, which may be repeated by the mouth, as needed.

The Thirst for Knowledge.—A gratifying indication of the progress which the broad principles of medical science are making is found in the fact that fifteen homeopathic physicians, after a course of study at the Cleveland College of Physicians and Surgeons, took diplomas from that institution at its commencement on May 3rd. The recent marvelous advances in medicine have left no room or even plausible excuse for sectarianism; and it is most encouraging that so many of our homeopathic brethren have the clearness of vision as well as the honesty to recognize the fact.

A Temporary Falling-Off in the Number of Graduates.—This is the first year that the requirement of the Association of American Medical Colleges for graduates to have taken a four years' course goes into effect, and, inasmuch as the students who matriculated four years ago found it possible to complete their course of study in three years, the number of medical graduates this year is markedly small. Starling Medical College, of this city, had but two graduates; the Ohio Medical University, four; Louisville Medical College had nine; and the medical department of the University of Louisville, thirteen. Reports from other institutions show correspondingly small classes.—*Columbus Medical Journal*.

The Telephone Microbe has been pronounced harmless by Dr. H. W. Hill, of the Boston Board of Health. Cultures were taken from ten telephones in the business section of the city, and subjected to the usual incubation and microscopic examination. The washings of the swabs were injected in guinea-pigs, and three months later they were killed and examined for tuberculosis. No lesions were found. Two telephones yielded nothing; six showed nothing but the hay-bacillus and of the two remaining ones produced a large harmless cocci, and the other a short beaded bacillus, also harmless. He concludes: "Practically, then, the telephone transmitter cannot be considered a usual or dangerous source of disease, but at the same time its possible action as an occasional medium for the carriage of disease must be admitted."

Epidemic of Lead-poisoning.—There occurred recently, in the Quartier de Monceau (Paris), 66 cases of acute lead-poisoning—the result of eating bread from a neighboring bakery. The baker had used for fuel wood that had been painted.

Local Anesthesia.—Dr. Kofmann, of Odessa, recommends a modification of Oberst's method of local anesthesia. He simply places a constriction band around the part, and does not operate until the tissues become blanched. No injection of cocaine is needed, since this procedure alone suffices to produce complete anesthesia. He never applies a rubber constriction band to the fingers and toes, but always beyond the next joint, because he has had a case of pressure gangrene of the big toe resulting from such constriction.—*Medical Record*.

Inoculation for Enteric Fever in the British Army.—The British War Office has decided that soldiers proceeding to military stations abroad where enteric fever is rife, shall be given the opportunity of the process of inoculation against the disease, which has been revived by Prof. A. E. Wright, the professor of pathology at the Netley Military Hospital. Professor Wright, as the result of some experiments, considers that such inoculations exercise a protective influence against the disease. Considering the terrible scourge which enteric fever is known to be to the young soldiers of all armies serving in hot climates, he will, undoubtedly, have rendered humanity great service, if his views prove to be correct. At the present time many people consider the experiments too small in number and inconclusive in result to warrant very sanguine expectations being based upon them. Still, they have received official endorsement to the extent we have indicated.—*Philadelphia Medical Journal*.

The Effects of Protracted Insomnia.—An Italian physician, Dr. Giulio Tarozzi, of Pisa, has been studying the effects of enforced loss of sleep on four dogs (*Rivista di patologia nervosa e mentale*, January; *Independance medicale*, March 29th.) The animals were watched night and day, and all possible means of rousing their attention and annoying them were taken to prevent their sleeping. Even at that, however, absolute insomnia was not secured, although practically the poor creatures were kept awake until death occurred. The fatal termination is described as taking place rather rapidly and as being preceded by a sudden and decided rise of temperature, followed by a gradual fall. The amount of sulphates and phosphates in the urine showed no characteristic change during the experiments; the chlorides were diminished in every instance during the few days preceding the animal's death. It is to be hoped that Dr. Tarozzi's results, meagre as they are, will be accepted without the repetition of so cruel an experiment, one well calculated, it seems to us, to play into the hands of those well-meaning but misguided people, the antivivisectionists.—*New York Medical Journal*.

"Doctor, why do you advise me to do so much walking in hot weather?" "I thought if you saved car fare you might pay it on my bills."—*Chicago Record*.

Book Reviews.

The American Medical Quarterly is a new journal published by a company of similar name, from the well-known location "100 William Street, New York." The editors are kept incognito, but the first number favored with contributions from Dr. Joseph M. Mathews, Dr. Hobart Amory Hare, Dr. Matthew D. Mann, Dr. Charles A. L. Reed, Dr. Wm. C. Krauss, Dr. Lawson Tait, Dr. Ernest Wende, Dr. Charles B. Nancrede, Dr. John O. Rae, and Dr. George Henry Fox. No matter who the editors may be, the above list of contributions is sufficient evidence of the value of the first number. This number contains ninety-six pages and the price is \$2.00 a year.

The Literary Digest, June 7th, contains a number of abstracts of able editorials on subjects that agitate many minds at this time, "Force and Conciliation in the Philippines," "Germany's Purchase of Spain's Islands, and Admiral Sampson on Our Future Army and Navy."

Our soldiers have been accused of inhumanity in the Philippines. This is shown to be false in a dispatch from Prof. Dean C. Worcester, of the Philippine Commission. Many other subjects of general interest are found in the number such as "Has the Germ of Cancer Been Found," "How Old is Niagara," "A Catholic View of the Philippine Friars," "The Plague in India," "The Russians in Persia," and many others.

Text-Book of Ophthalmology. BY ERNST FUCHS, Professor of Ophthalmology in the University of Vienna. Authorized Translation Revised from the Seventh Enlarged and Improved German Edition. By A. Duane, M. D., Assistant Surgeon, Ophthalmic and Aural Institute, New York. With two hundred and seventy-seven illustrations. Second American edition. 860 pp. New York; D. Appleton & Co. 1899.

As stated by the translator in the prefaces, five German editions of this book have been issued since the first edition of the translation was issued in this country. Each of them has been characterized by the addition of important new matter and by the thorough revision of the old. This is particularly the case with the last or seventh edition, which, in addition to the merits of lucidity, judicious treatment of the subject, and excellence of proportion and balance that have always characterized Prof. Fuchs' treatise, bears everywhere the marks of the most thorough revision, of additions and corrections, bringing the book up to date in all its parts, so that it presents an excellent summary of ophthalmological science as we know it to-day.

The most marked changes are met with in the sections on functional examination, the pathology of corneal and conjunctival diseases, and the diseases of the fundus. The translator has thought proper to insert two new sections, one upon heterophoria and one upon the use of homatropine and the other cycloplegics, and the general subject of the correction of refractive errors. Added to these excellencies cited by the translator, it remains to be said that he himself has performed his task superbly by turning the German text into smooth, flowing, and expressive English. In looking over the list of delicate operations about the eye, it seems that there is scarcely one of them that is not due to German patience and ingenuity, one or all of the leading methods in each case being named for some German operator.

The letter-press as well as the illustrations complete the excellencies of the book, which assure for it an improvement on the high position and great usefulness of the former edition.

but little over half of that of the average American population. Professor William Z. Ripley, in his papers on the racial geography of Europe in the *Popular Science Monthly*, discusses this question very ably and very fully. He states that if two groups of 100 infants each, one Jewish and one of average American parentage, be born upon the same day, one-half of the Americans will die within forty-seven years, while the first half of the Jews will not succumb to disease before the expiration of seventy-one years. According to Lombroso, of 1,000 Jews born, 217 die before the age of seven years, while 453 Christians, more than twice as many, are likely to die within the same period. In spite of the fact that the mass of the Jewish population of New York city is subjected to the most unsanitary conditions, is extremely overcrowded, breathes the foulest of air, eats much unwholesome food, works longer hours and in the most constrained and unnatural positions in the sweat-shops, their tenacity of life is greater than that of the surrounding Christian population, which lives largely out of doors, is less overcrowded, breathes purer air, and probably is better fed. The immunity of the Jewish population from accident on account of their in-door occupation will account for some of the discrepancy, but on this very account they should be more liable to epidemic and other diseases. This is not wholly true, however. They show an abnormally small proportion of deaths from consumption and pneumonia, which are responsible for the largest proportion of deaths among the American population. Professor Ripley ascribes their immunity from this, as well as from some other diseases, to the excellent system of meat inspection prescribed by the Mosaic law. Hoffman says that in London as much as one-third of the meats offered for sale are rejected as unfit for consumption by the Jews. Probably the temperate habits for which the Jews, as a race, are noted will account to some extent for their longevity. The Jew is temperate in almost all that he does, in all that he eats, and in all that he drinks. He is seldom addicted to the intemperate use of alcoholic liquors. He abstains from certain varieties of meat and those of the richer and more heating kinds, so that his frugal diet, his temperate use of liquors, his abstinence from certain foods which are unwholesome, account for his remarkable freedom from Bright's disease and diseases of the liver, which are largely diseases of intemperance. To sum up, the Jew, in spite of his physical condition and his social surroundings, and by reason of his temperance and sobriety, his frugality and his freedom from accident, contrives, on the average, to live nearly twice as long as his more careless and imprudent neighbors.—*Western Medical Review*.

WM. GEDDES, M. D., 1720 14th St., Washington, D. C., says: ALETRIS CORDIAL has proven, in a case of dysmenorrhea of some years' standing, wonderful efficacious, and has, apparently, given to the sufferer complete relief. This being the first case in which I have had occasion to try the ALETRIS CORDIAL, and sufficient time having elapsed for me to speak of the permanence of the cure, I can say that I propose to continue the use of ALETRIS CORDIAL in all such cases, and wherever a uterine tonic is indicated.

The Treatment of Carbuncles.

By MILTON P. CREEL, M. D., Central City, Ky.

President Muhlenberg County Medical Society; President Muhlenburg County Board of Health; Member Kentucky State Medical Society; Member American Medical Association.

THERE is no affection falling to the lot of human suffering that is attended with more pain and suffering than carbuncles. Besides the pain which they carry in their train, they are attended with much danger. As a cause of death, upon investigation, we will find that the mortality incident upon this affection is by no means contemptible. In this article I shall not deal with the symptoms or pathology of this affection, that being easily obtained by reference to the standard text-books on surgery.

One of the first considerations in the treatment of a patient with carbuncles is to see that he is well and thoroughly nourished. The importance of this is very manifest when we reflect how much debility is associated with the unfolding of a carbuncle. We should give regularly food of a nourishing character, and we must be satisfied that our patient gets enough to sustain strength. Liquid diet and easily digested solid foods are to be given as regularly as we do our drugs. Milk, predigested foods, and everything which offers no resistance along the line of nourishment will be called into requisition by the wise physician. In this connection I must not omit to mention the value of stimulants in some cases. In patients who are extremely weak, either from the disease itself or from a poorly nourished state of the system existing before the supervention of the carbuncles, it is of the greatest importance to give some stimulant regularly. Whiskey serves us well, but I generally allow the patient to select his own favorite liquor. I give stimulants often enough to keep the volume of the pulse good. There is no rule better than the one Jurgensen lays down; this, he says, "is the rule of consistency." He explains this by saying that stimulants should be given to produce the effect we desire. We must not stand on quantity or dosage, effect on the pulse is what we must obtain; if large doses are requisite and frequent dosage is necessary, we must bring both to bear.

The old writers on surgery and practice advocated the abstraction of blood and the employment of drastic purgatives. It is not worth serious argument to convince the practitioner of the present day that such practice tends to intensify all the serious factors in the case.

I shall now speak of the treatment of carbuncles by drugs and by surgical means. Let me consider the treatment under two heads: First, the internal treatment; second, the treatment by local applications and surgical procedures. By the internal remedies are meant not, of course, foods and stimulants as have already been mentioned, but pure medication to correct the blood dyscrasia which gave rise to the carbuncular conditions. Iodides and sulphide of calcium have been administered, but they are not now relied upon by the profession. Both of these agents have utterly failed to modify

in any way the progress of a carbuncle, and they have been tried thoroughly. Iron has also been tried, and it, too, has failed, and is not now relied upon by the profession. For some months I have relied upon echthol as an internal medicine. I have notes on fifteen cases treated with this agent. I employ it in doses of a teaspoonful every two hours. Its internal administration is the only drug which I can say has ever seemed to abbreviate the carbuncle. It is a corrector of blood dyscrasia, and in the best sense an anti-purulent. In this connection we may say that an anti-purulent is just what our therapeutics has lacked, and it is the first need of the practitioner when he has a carbuncle under his charge. Ordinarily I give no other internal remedy than echthol. This remedy I continue until the patient has been discharged. But as improvement becomes marked and steadfast, I allow the interval between the doses to grow longer. First, he is given the remedy every two hours, then every four as he gets along substantially well. This given in doses of a teaspoonful acts very promptly in giving, as it were, a check to tissue disintegration. Of course, opiates are often called for to overcome the pain present, in some cases to an almost insufferable extent. Papine is the best way to exhibit this agent, since it does not produce interference with the secretions as in the case with other opiates. I give it in doses of a teaspoonful every one or two hours until the patient has obtained relief from pain.

Coming now to the measures which should be employed locally and surgically, let me say that this part of the treatment is as important as the giving of internal remedies. During the time the inflammation is beginning and up to the time when there is sufficient pus in the pointing carbuncle to justify an incision, I employ flaxseed poultices. These soothe and hasten the formation of the pus. An incision is now made, and the pus all emptied; the cavity is scraped and all the dead inflamed tissue is removed. It is then carefully cleaned with peroxide of hydrogen. Then absorbent cotton saturated with echthol is applied to the exposed and adjacent surfaces. This is to be reapplied every four or eight hours, as the case in hand seems to warrant. Each opening is to be treated in this manner, and when we see a case of carbuncle with several centers ready to open we should remove as much of the diseased tissue as possible. Great freedom in the employment of the knife often greatly aids us in bringing about a speedy termination of the case in hand. It is the best thing we can do for our patient to lay the carbuncle open and remove all the diseased tissue, and treat the lesion then with echthol locally. If we employ this agent as our internal remedy, and use it also as a local application, we shall find that our treatment will prove more effective than by methods employed formerly.

I have treated fifteen cases of carbuncles in the manner here outlined, and the duration in each case has been greatly shortened, and the patients naturally got up with less weakness than they otherwise would.

Before employing this agent, a carbuncle meant a long spell and death or long-continued convalescence. The average duration of my cases under this treatment has been ten days.

I now give a brief account of several cases treated by the method I have here advocated :

S. C. T., aged thirty-seven, a miner by occupation. He had been a sufferer from malarial fever for a month or so, but was able to work. He had a carbuncle about the size of the palm of the hand on the neck. There was a great deal of pain, and fever of 101° F. was present. His carbuncle had five heads or points, and seemed to invite incision, they showing the presence of pus. This was thoroughly opened and the diseased tissue was removed as thoroughly as possible. Peroxide of hydrogen was used to clean out the diseased cavity well, and then absorbent cotton saturated with ecthol was applied constantly throughout the course of the disease. Ecthol in doses of a teaspoonful was given every two hours. This patient began to improve at once, and there was no retrogression. The carbuncle began to take on a healthy action, and this patient was discharged nine days later.

Mrs. B. K. Y., aged forty-seven, had a carbuncle on her face. This was attended with high fever and delirium. This carbuncle had three openings. It was treated as in the former case as regards the local and surgical means employed. Besides these she had to take predigested milk and considerable quantities of wine, so weak was she. She took ecthol internally also, in doses of a teaspoonful every two hours.

J. C. P., aged fifty-five, had a carbuncle on the nape of the neck. He had been a sufferer for years with asthma, and was in a low state of health. This patient I regarded as one who would give me serious trouble, and who would in all probability die. The carbuncle was freely opened and treated in the same way as the first case here recorded as regards the surgical and local measures. He was from the first given predigested foods and stimulants, and ecthol was the only internal medicine he received except some papine to relieve the pain. This man went along slowly, but he recovered fully, and was able to go about his work seventeen days from the time I first saw him.

These cases are selected because they are ones which would test the efficacy of treatment.—*The Cincinnati Lancet-Clinic*, April 29, 1899.

MESSRS. FINGER & ANTHONY, Salisbury:

Sirs—The Electro-plating which you did for me, I am pleased to say, is as near perfect as it is possible to be. The surgical instruments are practically as good as new.

G. R. DEAN, M. D.

Spartanburg, S. C., April 12, '99.

"What about the health of the place?"

"Health?" said the resident. "See here. Since the town was started only one man has died, and he was a doctor."

"What ailed him?"

"He starved to death."

"It seems to me, doctor, that your prices are rather steep."

"Well, you must bear in mind that it is not my own health for which I am running a sanitorium."

Trophonine

a palatable and nutritious liquid food, contains the nutritive elements of beef, egg-albumen, and wheat gluten, so prepared as to be readily absorbed and aid almost immediately in the process of reconstruction. It furnishes the sick with the largest possible supply of nourishment and with the minimum tax on the digestive organs.

Protonuclein

by increasing the number of Leucocytes, destroys toxic germs, increases the inherent resistance to disease, quickens glandular activity, arouses the nutritive forces, gives tone to the system, and stimulates cell-life throughout the organism.

Peptenzyme

is the only perfect digestive. It digests every variety of food. In physiological activity it presents the active and mother ferments of the entire group of digestive organs. It aids digestion by furnishing an additional supply of protoplasmic material out of which active ferments are elaborated, and perfects the process by increasing cellular activity.

Samples and literature on request.

Reed & Carnrick . . . New York

HOME MODIFICATION OF FRESH COW'S MILK

**Mellin's Food affords
the simplest means and
gives the best results**

"Mellin's Food actually assists to digest milk."—
G. W. Wigner, F. I. C., F. R. C., President Soc.
of Pub. Analysts, London, Eng.

MELLIN'S FOOD COMPANY . . . BOSTON MASS.

When writing, mention the N. C. Medical Journal.

Publisher's Department.

A USEFUL PRESENT.—W. R. Warner & Co., of Philadelphia, New York and Chicago, are distributing free to doctors and druggists, a very complete list of drugs, giving apothecary and metric doses. They are arranged in convenient columns and printed on coated linen cloth, size 22x14, for hanging at the prescription counter or in the doctor's office for ready reference. It will be sent to any doctor or druggist upon request. Drop them a postal for it.

SANMETTO IN CYSTIC AND URETHRAL IRRITATION AND INFLAMMATION, AND IN CHRONIC PROSTATIC HYPERTROPHY AND ATROPHY.—I have for years prescribed, as well as taken myself, Sanmetto, and have found it almost universally satisfactory in cystic and urethral irritation and inflammation. I have also used it with marked results in chronic prostatic hypertrophy, and even in atrophy of the prostate I have found it useful.

W. A. FORSTER, M. D.

Kansas City, Mo.

SOLAR HEAT.—Direct exposure to the sun's rays, employment in or living in hot and poorly ventilated offices, workshops or rooms, are among the most prolific causes of headache in summer-time, as well as of heat exhaustion and sun-stroke. For these headaches and for the nausea which often accompanies them, antikamnia will be found to afford prompt relief and can be safely given. Insomnia from solar heat is readily overcome by one or two five grain antikamnia tablets at supper time, and again before retiring. If these conditions are partly dependent upon a disordered stomach, two five grain antikamnia tablets with fifteen or twenty drops of aromatic spirits of ammonia, well diluted, are advisable. For the pain following sun or heat-stroke, antikamnia in doses of one or two tablets every two or three hours will produce the ease and rest necessary to complete recovery. As a preventive of and cure for nausea while traveling by railroad or steamboat, and for genuine *mal de mer* or sea sickness, antikamnia is unsurpassed and is recommended by the Surgeons of The White Star, Cunard and American Steamship Lines.

AN IMPORTANT OBSERVATION.—Prof. Burney Yeo, of London, states in his latest work on clinical therapeutics, that many of the common forms of diarrhoea are accompanied by excessive acidity of the intestinal contents and that they may be promptly cured by antacid remedies without the use of astringents.

These forms of diarrhoea are associated with the growth and multiplication of micro-organisms, which induce intestinal fermentation and consequent local irritation from decomposing food products.

The therapeutic indications in these cases are clear, viz.: check intestinal fermentation, neutralize acidity, and overcome the existing atonicity and catarrhal inflammation of the intestinal mucous membrane. Lauder Brunton speaks highly of the value of glycerine as an intestinal antiseptic. In combination with digestive tonic alteratives and antacids, as it is in Gray's Glycerine Tonic Comp., it fulfills all the existing indications and moreover promotes the digestion and assimilation of food so that the normal nutritive processes are speedily re-established. It is of particular value in diarrhoea occurring in people of impaired vitality, as it not only cures the intestinal disturbances, but it also restores tone to the enfeebled system.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, JULY 20, 1899.

No. 2

Original Communications.

Treatment of General Suppurative Peritonitis.*

BY STUART MCGUIRE, M. D.

Professor of Principles of Surgery, University College of Medicine ; Surgeon to St. Luke's Home and to the Virginia Hospital, Richmond, Virginia.

SOME writers divide inflammation of the peritoneum, due to pyogenic infection, into septic peritonitis and suppurative peritonitis; classifying as septic peritonitis those cases where, owing to the great number and virulence of the germs and the feeble resistance of the tissues, the patient dies before the histologic elements of the parts can be converted into pus; and as suppurative peritonitis those cases where, owing to an attenuated infection and a high degree of local resistance, the patient lives a sufficient time for the formation of pus and the development of other microscopic evidences of suppuration.

Septic and suppurative peritonitis are identical etiologically and pathologically; they differ in degree, not in kind; and the confusion of the terms, together with the artificial division of the immediately fatal cases into one class and the possibly curative cases into another, must explain the conflicting statistics of operative intervention for the relief of the condition, and must reconcile the number of successful cases reported by Abbe, McBurney and Finney with the statement made by Senn that he had opened, drained and washed out the peritoneal cavity in many cases of septic peritonitis and was free to confess without a single successful result: of Weir, that he had never himself been able to save a patient with general suppurative peritonitis and had never seen one saved; and of Grandin, that until recently he had expected death after general purulent peritonitis, and was not at all ashamed of his mortality rate of 100 per cent.

In the last two years I have operated on ten cases of general suppurative peritonitis, with seven deaths and three recoveries, and while my record is an ordinary one and I have nothing new to offer, I wish to give briefly the methods I have finally adopted in the treatment of the condition after a study of the literature of the subject, and a practical experience in the application of the suggestions of other surgeons.

*Read before the meeting of the Association of Surgeons of the Southern Railway, Richmond, Virginia, May 30th, 1899.

I. Early Diagnosis and Prompt Operative Intervention.—Early diagnosis is important, as each hour's delay decreases the patient's chances of recovery by increasing the amount of local and constitutional infection. Operative intervention is essential, as medical treatment has proven inefficient and surgical measures alone offer a rational hope of cure. At best the condition is desperate and the temptation to dodge the responsibility of an operation is great, especially when the surgeon has had a favorable run of cases and is nursing his statistics. But a surgeon is a life-saver, not a record maker, and his courage and ability should be measured rather by his success in preserving life than by his failure in averting death, and here at least the rule should hold: "Operate in every case as soon as a diagnosis is made."

II. Multiple Incisions.—It is impossible to deal with the extensive surface involved through a single incision. The abdomen should be opened first at the point giving the shortest and most direct route to the primary focus of infection, and then other incisions should be made where they will best facilitate thorough cleansing and subsequent drainage of the cavity. In suppurative peritonitis due to disease of the appendix, the original incision should be made in the right iliac region, but in all other instances it should be in or near the median line; above the umbilicus for trouble with the gall-tract, stomach and duodenum; below the umbilicus for disease of the tubes and small intestines. The opening should be large enough to permit of thorough exploration of the underlying viscera, and to give the operator room for easy and quick correction of the pathologic condition found.

The secondary incisions should usually be three in number; one opposite—below or above—the primary incision, and the other two in the posterior lumbar region. If the patient be a woman, an opening into the vagina through Douglas cul de sac will do good service. These incisions can be quickly made by introducing the hand through the first opening and cutting boldly from without on the fingers as a guide. The secondary incisions should be large enough to permit the easy passage of gauze drains, but not large enough to cause danger of bowel protrusion should the patient vomit or cough.

III. Evisceration and Irrigation.—To cleanse the abdomen thoroughly it is necessary to empty it of its contents. The intestines should be drawn through the incision—thus practically disemboweling the patient—enveloped in hot gauze towels and placed to one side. The peritoneal cavity should then be wiped out with moist gauze compresses and the bowels gone over systematically loop by loop and freed from flakes of lymph and other visible evidences of infection. The process should be effected rapidly under a continuous hot irrigation, the water being poured from a pitcher or bottle in the hands of a nurse. Some surgeons use a decinormal salt solution; some prefer a weak solution of boric acid, salicylic acid, acetate of aluminum, or bichloride of mercury. Some employ peroxide of hydrogen, or even pure carbolic acid, neutralized afterwards by the action of alcohol; but plain sterilized water answers every purpose. The object of irrigation is merely mechanical cleansing, and the use of antiseptics is illogical, as they cannot be employed in sufficient strength to be destructive of microbic life without disastrous effect on the vitality of the cells of the part.

IV. Incision of Overdistended Bowels.—In many cases of general suppurative peritonitis the bowels will be found parietic and distended with gas. To crowd them back into the abdominal cavity is to condemn the patient to certain death. They should be incised at several points and the tension relieved. One of the most prominent loops should be taken, separated from

its fellows, held over a basin, and an incision made into its lumen transversely to its long axis at a point opposite the attachment of the mesentery. As soon as the gas escapes the opening should be sutured, the surface sponged off and the operation repeated at other points until the end desired has been accomplished and the bowels can be returned into the cavity without force.

Practical experience has demonstrated that the theoretical dread of invading the interior of the gut is unfounded. It is not what is let out, but what is left in, that kills, and if surgeons would consider less the danger of microbic infection, and consider more the danger of mechanical pressure, statistics would be better.

V. Drainage.—Drainage in abdominal surgery is said to be a confession of incompetency, and its use is usually attended by some little feeling of mortification. In general suppurative peritonitis it is simply an admission of the inadequacy of known measures to secure complete asepsis of the entire peritoneal cavity, and its use should invariably be employed. The extensive dissemination of infection and the lack of an efficient non-toxic antiseptic make surgical sterilization but partially successful, and hope for recovery must be based largely on the vital powers of the organism.

Nature should be aided on the work of neutralizing and eliminating septic material, by the provision for the actual escape of deleterious substances from the peritoneal cavity, and this can be effected by the introduction of gauze strips through each of the several incisions, which not only prevent the wound from closing, but also act as wicks and produce capillary drainage.

Gauze strips act by continuity, not contiguity, of their fibres, and hence should be introduced straight and not folded on themselves. One end of each strip should extend to the lowest level of the portion of the abdominal cavity it is intended to drain, and the other end should project some inches through the cutaneous wound. The absorbent dressing which surrounds the free extremity of the strip, and which is expected to retain the fluid it removes, should be changed as soon as it becomes saturated. Gauze drains should be left in position as long as they are apparently doing good and not obviously doing harm. Usually they are removed partially or completely in from three to five days. Sometimes they are replaced by fresh strips; occasionally the wounds can be closed by secondary sutures.

VI. After-Treatment.—The care of the patient after an operation for general suppurative peritonitis is based on the same principles as that of any other case of abdominal section. Shock is usually profound; and absolute quiet, the application of external heat and the hypodermic administration of small doses of morphine and large doses of strychnia should be directed. I think that the routine use of saline transfusion has become a disastrous abuse of a sometimes useful measure. I have seen the injection of hot salt solution into the rectum do good, and I have seen the prolonged detention and increased chilling of a patient on the operating table from the bungling efforts of assistants to do venous transfusion, produce death.

I have had little experience with the use of antistreptococci serum. Its advocates admit that it is worthless in infection due to staphylococci, gonococci, pneumococci and the almost invariably present bacilli coli communis. Until its status is determined by further clinical experience, it should be used cautiously and with little dependence on its action.

In conclusion permit me to say that success in the surgical treatment of general suppurative peritonitis depends on the rapidity and completeness with which the operation is performed. Haste, breathless haste, should characterize every movement. But while no time should be lost in elaborate

dressings or unessential details, no time should be saved at the expense of the thorough mechanical cleansing of the cavity and the provision for its subsequent efficient drainage. Once begun, the operation should be pushed relentlessly to a satisfactory finish; for it is better for the surgeon's peace of mind to have the patient die on the table in an effort to save him, than to put him to bed in a hopeless condition to die a few hours later, the possible victim of indecision and timidity.

I am conscious that my views on the treatment of general suppurative peritonitis may appear those of an extremist; but the condition is one that requires heroic measures, and statistics prove that apparent radicalism is the truest conservatism. The battle is with a virulent and hitherto victorious foe, and as some one has said, "War is Hell."

Notes on Some Recent Eye Cases in Railway Practice.*

By DUNBAR ROY, A. B., M. D., Atlanta, Ga.

Clinical Professor Eye, Ear, Nose and Throat in Atlanta College of Physicians and Surgeons. Oculist and Aurist to Grady Hospital, Oculist and Aurist to Southern Railway.

IT seems almost impossible to present any article on the eye or ear before a body of surgeons, which will prove of interest to them and at the same time be free from such technicalities as are always of interest to the ophthalmologist. We have held three meetings of the Association and at all three I have appeared before you with a paper which I endeavored to make practical and of interest to all, so that when an invitation was extended to me for a contribution to this the fourth occasion, I was at a loss to know just what subject to bring before you. The large majority of railroad surgeons are frequently called upon to treat the lighter forms of eye injuries which occur in their service, in that they are remote perhaps from him whose work lies exclusively in this special line of work. To know how to handle such cases is always desirable, and in the first paper which I read before this Association some of you may perhaps remember the practical points which were then given. In Atlanta the Southern Railway Shops employ about 500 men, and among this number it is not surprising when you also consider the character of the work, that there almost daily occur slight injuries to the eyes, such as abrasions and the superficial entrance of foreign bodies. Severer injuries sometimes occur both at the shops and on the road, and it is to these latter that I wish to direct your attention to-day.

Theoretical reasoning can never take the place of practical experience.

To me the report of a clinical case is always of interest, because it conveys so much more practical information, and I trust that the report of these few clinical cases may not be without interest and value to you. These reported cases have all occurred within the last two years, and they were almost without exception so severe in character as to require the most minute care in every detail.

Before narrating these I wish to say but a few words in regard to traumatic injuries of the eyeball.

There are two results which are liable to follow after severe injuries

*Read before the Association of Railroad Surgeons of Southern R. R. in Richmond, Va., May 29th and 30th.

about the eye, and the ones for which the ophthalmologist has the more concern, viz :

1. Loss of vision in the injured eye, and which frequently carries with it the eyeball itself.
2. Sympathetic ophthalmia in the uninjured eye.

To obtain a successful result in the first case often requires skill and judgment, while in the second the result is often beyond our control, since its pathology is still enveloped in darkness.

My own experience has been that patients almost without exception had rather retain a scarred eyeball in the orbital socket, even though its vision was only the recognition of daylight from darkness, than to have an empty socket occupied with an artificial eye. People have in general a great aversion to the removal of the slightest appendage from the body which naturally belongs there. Then again, in damage cases against the railroad, an empty orbital socket shown to the jury will have far more influence in deciding for the plaintiff than if you showed even a shrivelled eye.

For this reason I have long ago learned to lean towards the conservative side in my endeavor to save an eye after a severe traumatism, and try by every effort to retain the ball from an atrophic state. With these preliminaries, I shall give in detail the histories of the cases coming under my care, although in some instances the final results could not be traced.

CASE I.—W. F., boiler-maker, white, age 45, sent down from Knoxville by Dr. S. R. Miller, for consultation. From the patient and Dr. Miller's letter the following history was elicited: Three days ago, while working in the shops at Knoxville, a piece of iron casting upon which he was working, flew up and struck him in the right eye. The piece, he said, was as large as his thumb, and fortunately, therefore, did not lodge in the eye. The shock to him at that moment was very severe and he felt as if his eye was entirely destroyed. He was carried home in a carriage and soon after he was seen by Dr. Miller. From the latter's letter I ascertained that instillations of atropine solution and cold applications externally were used, which succeeded in allaying his suffering to a marked extent. Three days later he presented himself at my office. *Left eye* clear and free from all irritation. Vision normal. *Right eye.* In the lower outer quadrant of the cornea there was a rupture about 5 mm. in length, extending very near to the sclero-corneal margin. Into this rupture the iris was prolapsed and incarcerated so that the pupil had a pear-shaped contour, the apex being at the point of rupture. No signs of infection, but firm closure at point of rupture. The anterior chamber was naturally shallow. The iris was projecting just a little above the cornea at the seat of rupture. The lens was almost opaque. Vision was hardly more than the recognition of objects moving just in front of eye. Tension good. There was some circumcorneal injection and some photophobia, but beyond this the patient complained of scarcely any pain. Patient was advised to report immediately to Knoxville under the care of Dr. Miller. I wrote the doctor, advising the continued use of atropine instillations and the application of hot fomentations if there was any pain. Also advised firm compression-bandage to be worn constantly for the purpose of producing a smooth flat cicatrix. Two weeks later the patient was seen again. There was a slight irritation and some photophobia. The good firm cicatrix had formed at the sight of rupture and prolapse. The lens was in about the same condition. Vision was practically nil. The patient wanted to return to work, but was advised that a rest of at least two weeks longer would be better. He

returned to Knoxville, under date of May 20th, 1899, Dr. Miller, at my request, writes to me as follows :

"I beg to say that Mr. F. was under my care from January 14th to February 26th, 1897, at which time I discharged him with instructions to return to work in a week or two, which I am informed he did. I learned about a year thereafter, that he had had his eye removed. I do not know when he had it done, or who did it. I requested him on two occasions to come to my office and give me a report of his case, but I have not seen him since."

It would be interesting to know of the enucleation.

CASE 2. The following case shows where strict attention to diagnosis is absolutely necessary ; otherwise, we may be led astray by the patient's statements.

D. M., colored, age 23, engine cleaner at the Southern Railroad shops, was sent to me by the Master Mechanic on June 18th, 1897. From the patient the following history was obtained : On the 25th of the previous month he was accidentally struck in the left eye by a piece of coal, while at work. The eye became very sore, but he used salt water and the eye became better. Three days ago it became much worse, and he attributed the whole condition to the previous injury. On examination, I found the whole eye very much congested, showing quite a severe conjunctivitis with a muco-purulent discharge. Patient did not complain. The cornea was closely examined without result. The pupil was round and responded readily to light. On averting the upper lid there was seen towards the free border an abraded ulcerous looking excavation. On palpation there was an indurated, parchment-like sensation. Over its surface there was a good deal of secretion. There was some enlargement of the pre-auricular glands. The diagnosis of chancre of the upper lid was made, but to be more certain he was sent to Dr. Bernard Wolff, a dermatologist, who confirmed the diagnosis. The railroad company suspended the patient for a time. Later he developed iritis, which readily yielded to anti-specific remedies. In time he returned to work, and I have not seen the case since.

CASE 3.—B. M., white, aged 21, machinist at shops, presented himself at my office on October 13th, 1897 :

History.—One hour ago the patient was chiselling some iron, when a particle flew up and struck the left eye. There was immediately severe pain and absolute blindness. Patient doesn't know whether or not the particle of iron entered the eyeball.

Examination. A linear rupture about 5 mm. in length was seen at the inner lower quadrant of the cornea of the left eye. The anterior chamber was filled with blood and absolutely collapsed. There was no prolapse of the iris. The patient seeming to think that the piece of iron was still in the eye, the electro-magnet was tried without any successful results. A curved point of a Hirschberg magnet was used through the original rupture. Not being successful in this attempt, the eye was cleansed, atropine instilled and a compress-bandage applied. This was all the treatment used with the exception of seeing that his bowels were kept well open, a precaution which should always be taken. From this time on the patient was seen every day, but as was expected from the large amount of intra-ocular hemorrhage the eye gradually went into phthis bulbi. At no time was there much pain or signs of infection. There was never on the other hand a symptom of even sympathetic irritation.

CASE 4. L. T. W., white, age 25, boiler maker at Southern shops. Patient was brought to my office.

History.—Two hours ago while cutting off the ends of some iron staves, a piece flew up and struck the right eye. His eye pained him severely. On examination I found a rupture of the globe about 7 mm. long in the upper and outer quadrant of the cornea and extending 3 mm. beyond the sclero-corneal junction. There was no protrusion of the iris although it was lacerated. Blood filled the whole of the anterior chamber. The electro-magnet was not used, as the patient was confident the piece of iron was not in the eye. Vision at that time was simply perception of light. The eye was washed with 1-5000 bichloride solution, atropine solution instilled into the eye and a compress-bandage applied. No further treatment than the above was used. The wound healed nicely without any signs of infection. The iris became incarcerated, which changed the size and contour of the pupil. Two-thirds of the iris responded to atropine. The eye gradually healed without much irritation. Two months later the patient could count fingers at three feet if held to the right. Tension of the eye good. At present the eye is about the same. An iridectomy would probably improve the vision, but the patient will not consent for anything to be done.

CASE 5.—J. D., colored, age 37, blacksmith helper at the shops, presented himself at my office Oct. 19th, 1897.

The following was the history:

About one and a half hours ago, the patient was hammering on a piece of steel when a large piece flew off and struck the right eye. Immediately afterward there was considerable pain and bleeding with dimness of sight.

Examination.—There was a slight incised wound on the upper lid of right eye. There was a large amount of ecchymosis in the bulbar conjunctiva, especially on temporal side. In close examination no injury could be seen on the cornea. The pupil reacted to light accommodation and both pupils were seemingly the same size. Vision, counting fingers at one foot.

The pupil was dilated with atropine in order to examine the fundus, it responding readily to the mydriatic. No fundus reflex could be seen with the ophthalmoscope. By oblique illumination with a strong convex lens, blood could be seen behind the lens, making the diagnosis one of concussion of the ball with resulting hemorrhage into the vitreous. There was no pain and no inflammatory symptoms. Tension was practically normal. The treatment consisted in the installation of atropine solution with the use of hot fomentations, and iodide of potassium internally to aid in the absorption of the blood. The subsequent history was that the blood in the vitreous became organized into bands of tissue and there resulted a detachment of the retina in the upper portion. This case adds much to the theory that detachment of the retina is due to contraction vitreous. There was slight irritation about the eye for several months. Finally the lens became opaque, but the tension of the eye remained normal. Such was the condition of the eye when last seen, all irritation having disappeared.

CASE 6. W. H., white, age 23, fireman on passenger train. Patient presented himself at my office late on the afternoon of the 15th of last month. He gave the following history:

On that morning while firing on the north-bound passenger train his right eye was injured by a piece of coal just before they arrived at Gainesville, Ga. The injury was so severe that they sent him back to Atlanta. He was breaking coal at the time when a piece flew up and struck his eye. It pained him considerably.

Examination at Office.—No contusion of the lids. Eyeball of right eye much congested. Complains of some pain. Vision equalled fingers

when held very close to the eye. Vision in left eye normal. On close examination a rupture was seen extending nearly the whole width of the cornea across the center of the pupil, downward and outward. Anterior chamber collapsed. Inside of the chamber, at its lower part, partly on the iris and partly on pupillary margin, a piece of coal could be seen, triangular in shape, about 3 mm. in diameter. The wound was still open and the aqueous escaping. Following a general rule, which I always practice, and that is to remove a foreign body from the interior of the eye, if possible, through the original wound, the eye was cocaineized and under artificial light the extraction was attempted. Finding that the forceps were unsuccessful, I introduced a Tyolls hook in and behind the piece of coal, making gentle traction from below, so that when it appeared at the wound it was grasped with forceps and removed. The wound and anterior chamber were examined closely for any broken fragments but none could be found. Atropine was instilled and the eye washed and bandaged. The iris did not seem to be lacerated. Next day the wound had healed and the pupil had responded to the atropine. Patient had a good night's rest without an anodyne. From this time on, the patient still being under treatment, the wound gradually healed, the irritation becoming less. The scar at the point of the wound interferes quite a little with vision, but I trust it will grow less pronounced. At the time my chief fear was injury to the lens and a resulting cataract, but so far there has appeared no sign of this. Tension at present is good and vision equals 20-100. There are no discoverable signs of cataract and the corneal irritation seems rapidly subsiding.

These cases are reported simply to show what character of injuries of the eye we sometimes have to treat as railroad surgeons, and also to show what results we may probably expect. When an eye is injured, naturally the first thing the patient will ask the surgeon is, "Will my sight be lost?" In all severe injuries, or even in such as appear trivial at the time, the answer to such a question is difficult to make, and the surgeon should never commit himself in too positive a manner. Nature is a wonderful restorer and often the results are far better than we could possibly anticipate, yet on the other hand ill results sometimes come when least expected.

What are the causes of blindness as most frequently found in severe injuries to the eye?

Usually it is due to some interference with the conducting media and less frequently to some injury of the perceptive apparatus. Let us note some of the pathological conditions in the former.

If we have a severe laceration of the cornea we are almost sure to have some involvement of the iris. With this laceration and contusion we cannot always foretell how much white scar tissue will be left, especially if there should be superadded the element of infection. Then again it largely depends upon which portion of the cornea the injury occurs, since slight traumatism just over the pupil will often interfere, where much severer ones at the periphery will occasion but slight diminution of vision. If to this corneal laceration there is added a prolapsed iris and a consequent distortion of the pupil, the element of vision is again a very uncertain quantity.

After the iris comes the lens, and so long as this remains transparent we have nothing to fear, but the difficulty is we can never tell when it will become opaque from the severest injury down to the slightest concussion of the eye.

Traumatic cataract is the one thing that ophthalmologists ever fear after injury to the eye.

After the lens comes the vitreous chamber, and here many of the changes take place which will finally interfere with distinct vision. The great danger here is hemorrhage from some of the surrounding tissues, more especially the ciliary region, which is rich in blood supply. When such occurs we cannot prognose the results. I have seen blood almost entirely disappear from this chamber, leaving only a few floating bodies, while in others I have seen it become organized into fibrillary membranes and remain for life. Next comes injury to the choroid sack, as rupture, or to the retina, such as *commotio retinae*. Here, in some instances, all the tissues I have mentioned may escape injury only to find a deep rupture at the choroid. If the rupture occurs across the line of one of the blood-vessels we may have hemorrhage super-added, and such always complicates matters.

A "shaking up" or *commotio retinae*, or a rupture of the choroid will interfere with vision in certain areas, corresponding to the seat of rupture. Such will never cause complete blindness, and blindness from *commotio retinae*, is most liable to be temporary. Lastly comes the optic nerve, which is seldom involved, unless there should be extensive traumatic changes in the bones of the face and skull.

After the loss of vision, which is the important thing in the mind of the patient, comes the subject of sympathetic ophthalmia, which to the ophthalmologist, must rank first of all.

This subject is still subjudice, and we are far from its solution, while so many clinical facts stare us in the face.

In none of the cases reported in this paper, was there even sympathetic irritation, although in three of them such a pathologic condition was by no means out of the question.

As was said in the beginning of this article, I never believe in sacrificing an eye if it is possible to retain even a globe of proper tension, especially if such is to be shown before a jury and you must in a measure assume the whole responsibility.

It has been almost conclusively shown that even a rupture in the so-called "dangerous region," the ciliary, is usually harmless unless there is infection of the wound.

If such then be the case, the most rigorous antiseptic measures should always be instituted just as soon as an injured eye comes under your care. Injuries plus the entrance of foreign bodies into the interior of the eye, add much to the gravity of the case, although there are numerous cases on record where foreign bodies have remained in the eye for years without causing any untoward symptoms.

The question of removal of foreign bodies from the eye is a large one and would occupy too much time in an extended discussion to-day; while it is true that some foreign bodies may remain harmless in the eye, it is equally true that they are a constant menace to this organ and should always be removed if possible and thus try to save the eye.

The harmlessness of the presence of any foreign body in the interior of the eye, as has been shown by Prof. Leber and others, is dependent largely upon its septic condition and chemical composition. Foreign bodies have been known to remain quiescent in the eye for a period of twenty years and then to have started up a sympathetic irritation. Taking all the things into consideration, an eye is much safer with a foreign body *out* of the globe. Since the introduction of the electro-magnet there have been many eyes saved which would undoubtedly have been lost had not such been used. For instance, Hirschberg, of Berlin, reported in 1890, a series of 100 cases in

which he had used the electro-magnet with 13 successes, while prior to the use of this instrument he had not had one good result.

Rouquette, in 1893, laid down a general principle from his clinical experience which is in accord with that of a great many others, namely: that foreign bodies which are oxidizable become encysted after entering the eye and for awhile cause no inconvenience, but in time inflammation may be provoked by oxidation. Non-oxidizable bodies as glass, silica, lead, etc., frequently lead to suppuration.

Hurziler in France has collected 313 cases of extraction, or attempted extraction, with the electro-magnet, of particles of iron from the vitreous, published by different authors. From these statistics it was found that extraction was successful in 203 cases, that is 64.85 per cent. A certain degree of vision was only preserved in 69 cases, that is about 22.04 per cent. The exterior form of the eye was preserved in 35 other cases, 17.24 per cent. These observations were made in 1896, but like in everything else surgical experience is obliged to make better statistics. Yet even such a report shows that many cases can be saved by means of the electro-magnet. Time does not permit a further discussion of this interesting subject, but I will say, in passing, that the safest method, as Hirschberg says, is propholaxis. By this I mean that corporations who employ a large number of men in foundry or boiler shops, should provide each man with spectacles of plain glass and thus preserve eyes from traumatic damage. It would save numerous eyes and at the same time it would be a great economy in the payment of indemnities due to such accidents.

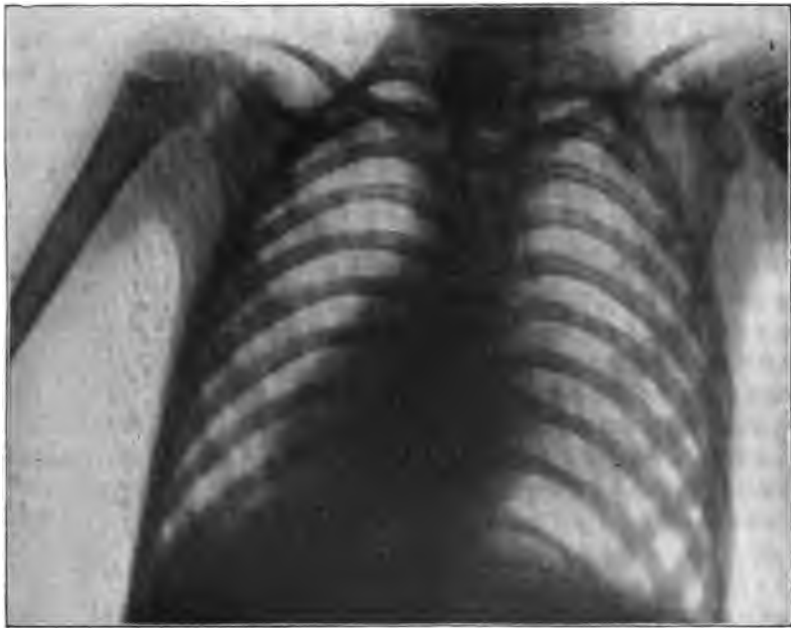
A few words now in regard to the treatment of ruptures of the eyeball with prolapse of the iris. Early in my clinical work I noticed that ulcers of the cornea, which perforated with an attendant prolapse of the iris, usually immediately healed and the virulent infection rapidly subsided, the eye usually healing with a firm, white cicatrix through the prolapsed iris. From this I was led to treat small prolapses of the iris from traumatic causes in the same way, simply using firm compress-bandages with either eserine or atropine. In 1897 Dr. Herman Knapp, of New York, a man eminent for his ophthalmological work, published an article in his archives on "Conservative Treatment of Certain Prolapses of the Iris." He had studied the subject in the laboratory, and as a result of this he found, while studying the action of pathogenic bacteria, on perforating wounds of the cornea, that "corneal tissue adjacent to the wound was densely infiltrated with staphylococcus pyogenes, whereas the tissue of the prolapsed iris was free from them." This led him to make the following rule for his own guidance and which clinically he has adopted ever since: "Never cut or burn off protruding iris in any infective conjunctival corneal disease." He also says, "I do not remember a single case of sympathetic ophthalmia from any kind of prolapse, if the iris had not been wounded by any accident or by the hand of the surgeon." Such a rule as this I have followed now for several years and have never had cause to regret it. My own rule is never to touch a prolapsed iris through the cornea unless it is so large as probably to lead to an occluded pupil. My rule is to put on a firm compression-bandage in conjunction with the use of instillations of atropine and eserine and thus allow a firm, smooth cicatrix to form in time through and around the prolapsed iris. Sometimes there results a cystoid cicatrix, but even this is often better to have than an infected eye with probable loss of the whole globe. There is a great deal more which might be said on such an interesting subject but this paper has already reached sufficient length to warrant me in relieving your patience.

Report of a Case of a Foreign Body in the Esophagus, Located by Means of the X-Rays and Removed with a Swivel Coin-Catcher. *

By JOHN H. GIBBON, M. D.

DURING a recent substitution for Dr. R. H. Harte at the Pennsylvania Hospital, the following case came under my care :

P. Y., a boy, aged 5 years, was admitted to the hospital March 11th, 1899, and was discharged March 18th, 1899. Two weeks before admission the patient swallowed a campaign button, such as is worn in the lapel of the coat during political campaigns. A physician was sent for, but



Skiagraph of a Campaign-Button in the Esophagus. (Stewart.)

could not see or feel the button, and as the child presented no urgent symptoms, the case was put upon expectant treatment.

As time went on, swallowing became more difficult, and the patient was only able to take small amounts of liquid food. He lost a great deal of flesh, and became pale and peevish.

On his admission to the hospital, the skiagraph, which is here reproduced, was made by Dr. Stewart. It shows the button to be lodged opposite the first and second dorsal vertebrae. The day after admission the child was etherized and the button was removed with the swivel coin-catcher. There was some little bleeding following removal, and the child vomited a little blood once afterward, but no other symptoms developed, and the patient was discharged four or five days later.

This case shows the great advantage of the X-rays. It enabled me, in this particular instance, to observe the exact location and position of the foreign body. As two weeks had elapsed since the lodgment of the button, I feared lest some ulceration of the esophagus might have occurred and that

*Read April 26, 1899.

the removal might cause further injury. I tried first to use a pair of esophagus forceps, but the curve was so obtuse that I could not get the blades down to the button. I thought the forceps preferable to the coin-catcher because with the former I could easily turn the button loose, if, for any reason, I found it necessary to do so. However, it could not be used and the use of the latter instrument became a necessity.

Although I thought I had utilized the X-rays to the greatest advantage, I found, in reading the *British Medical Journal*, for April 1st, a case of this kind, reported by Mr. Roxburgh, who not only located the foreign body, which in this case was a halfpenny, by means of the fluorescent screen, but, by placing his patient, a child of five, on a board table and having the tube underneath the table and the fluorescent screen between himself and the patient, he was enabled to observe each step of his operation, from the first introduction of the forceps to the grasping and removal of the halfpenny.

The most likely place for the lodgment of a foreign body in the gullet is first at its beginning, behind the cricoid cartilage, next, where it is crossed by the left bronchus, and lastly, at the cardiac opening of the stomach.

When a body is lodged in the first position, the danger accompanying the condition is obstruction of respiration. Total obstruction to passage of food has occurred, and also ulceration into neighboring organs, more particularly into bloodvessels. Cases have been reported of ulceration into the aorta, accompanied by fatal hemorrhage.

When removal cannot be accomplished by use of the finger, of the esophagus forceps, or of the coin-catcher, and when the body cannot be forced into the stomach, esophagotomy becomes necessary, and particularly would this operation be advisable if there was evidence of ulceration of the esophagus from the prolonged presence of the foreign body. The preferable operation is through the left side of the neck, although several surgeons have attacked the esophagus through the posterior mediastinum when the foreign body was low down. Ashhurst collected 145 cases of esophagotomy, through the neck, with only thirty-nine deaths, a mortality probably greatly reduced by more recent improvement in aseptic technique.

SIGHT-SEER'S HEADACHE.—There are, no doubt, very many important uses for antikamnia, of which physicians as a rule may be uninformed. A five grain antikamnia tablet prescribed for patients before starting on an outing—and this includes tourists, picknickers, bicyclers, and in fact, anybody who is out in the sun and air all day—will entirely prevent that demoralizing headache which frequently mars the pleasure of such an occasion. This applies equally to women on shopping tours, and especially to those who invariably come home cross and out of sorts, with a wretched "sight-seer's headache." The nervous headache and irritable condition of the busy business man is prevented by the timely use of a ten-grain dose. Every bicycle rider, after a hard run, should take two five-grain tablets on going to bed. In the morning he will awake minus the usual muscular pains, aches and soreness. As a cure and preventive of the pains peculiar to women at time of period, antikamnia is unequalled and unaccompanied by habit or unpleasant after-effect. If the pain is over the lower border of the liver, or lower part of the stomach, or in short, be it headache, side-ache, backache, or pain of any other description caused by suppressed or irregular menstruation, it will yield to two five-grain tablets. The dose may be repeated in an hour or two, if needed.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.
Editors and Proprietors.

W. H. WAKEFIELD, M. D.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.
J. HOWELL WAY, M. D., Waynesville, N. C.
J. ALLISON HODGES, M. D., Richmond, Va.
S. WESTRY BATTLE, M. D., Asheville, N. C.
GEO. G. THOMAS, M. D., Wilmington, N. C.

R. L. PAYNE, M. D., Norfolk, Va.
H. S. LOTT, M. D., Winston, N. C.
J. W. LONG, M. D., Salisbury, N. C.
H. A. ROYSTER, M. D., Raleigh, N. C.
ALBERT ANDERSON, M. D., Wilson, N. C.
J. P. MONROE, M. D., Davidson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

RAILWAY INJURIES.

We remember some years ago to have heard a medical missionary from China make the statement that traumatic cases were comparatively rare in that country, as there were few railroads. From an advance abstract of the report of the Inter-state Commerce Commission for the year ending June 30th, 1898, giving among other interesting matter, detailed statistics of the number of persons injured by railroads during the previous twelve months, one can realize what an important part these highways of commerce and of travel play in adding to the vicissitudes of human life.

The total number of casualties for the year, were 47,741; of this number, 6,859 were killed and 40,882 injured. Of the number killed 1,958 were employes of the railroads, and 31,761 of those wounded were employes. The number of passengers killed during the year was 221, and the number injured 2,945. That class known in railroad nomenclature as trespassers were peculiar sufferers, some 4,000 being killed, and as many more wounded, showing that the process of riding the "blind baggage" is not a very salubrious method of travel, for the greater proportion of the killed and injured classed under the head of trespassers belong to the tramp genus, with their well-known liking for free transportation and its attendant hazards. This class also includes the individuals, and they are not uncommon, who after having partaken too freely of alcoholic stimulants, exhibit an overpowering tendency to regard the railroad track as a suitable place for a walk, "perchance to sleep."

The summaries containing the ratio of casualties show that one out of

every 447 employes was killed, and one out of every 28 was injured. One passenger was killed for every 2,267,270 carried, and one injured for every 170,141 carried.

Healing by First Intention and Disinfection of the Hands.—Dr. Theodor Kocher (*Boston Med. and Surg. Jour.*) contributes an exhaustive paper on this subject, in which are discussed the bearing of the hands of the operator and his assistants and the various recent ideas in preventing contamination of the wound by this means. The influence of various kinds of gloves as recommended by different surgeons is considered. Though the author in nearly all of his operations during the past year has used the cotton gloves recommended by Mikulicz, he concludes that the most desirable is the impermeable rubber glove suggested by Halsted. Of 339 aseptic operations during the year, five died, but none of these deaths was due to infection going out from the wound. Of the remaining 334 cases all but three, or 2.3 per cent. healed absolutely by first intention. In all but 20 cases the cotton gloves were worn. Catgut was used in ten cases. There were only three cases in which infection took place during the operation, and in two of these catgut had been used for ligatures. The following conclusions are reached in regard to the disinfection of the hands and the wearing of gloves:

(1) *Either*: Do use sterilized rubber gloves for every operation when you wish to be quite independent as to the form of your nails, the touching of everything you like, and the liberty to wash or not to wash your hands, and when you can spend plenty of money. Put your covered hand from time to time in a strong antiseptic solution (best, two per-cent. sublimate) during a long operation, if you wish to be very careful.

(2) *Or*: Do never wear gloves for operations, do what you like between your operations, but poison yourself every time before you operate by brushing and bathing your hands for ten minutes in a strong, hot sublimate solution after thorough washing and cleansing with hot water, soap and alcohol for fifteen minutes. Repeat a short antiseptic ablution frequently during a long operation, when you wish to be very careful.

(3) *Or*: Go the golden middle-way; avoid touching with uncovered hands any infective or septic material *between* the operations or wash it carefully away at once, cut your nails as short as possible, brush your hands thoroughly with hot water, soap and alcohol (85 to 95 per cent.), avoiding any poisonous disinfectant before you operate, and, if you wish to be very careful, put cotton, silk or, best, rubber gloves on when you touch the threads for ligatures and sutures and when you have to tear the tissues much and to rub your fingers into the depth of a wound.

(4) But don't forget that the healing of the wounds *per primam intentionem* does not depend exclusively upon your hands, but also upon the same preparation of the patient's skin, upon sterilization of everything else coming in contact with the wound and its surroundings, upon complete arrest of bleeding, exact closing of the wound by sutures, or avoiding accumulation of fluids in cavities, necessarily left, by drainage, and, last but not least, upon the use of *anti-septic* threads for ligatures and sutures, as long as impermeable threads are not yet invented.

News and Items.

Of the 486 foreign matriculates in the medical schools of Paris, only one is from the United States.

A woman in Brooklyn recently took a 300-mile bicycle ride in twenty-nine hours. She has announced her intention to ride 400 miles in forty-eight hours.

The marriage of Dr. Alfred Stillé, ex-president of the American Medical Association, and emeritus professor of the University of Pennsylvania, to Miss Catherine A. Blakiston, of Chestertown, Maryland, occurred June 14. The groom is eighty-five and the bride fifty-eight.

A short time ago an ex-broker of New York City filed a petition of bankruptcy with liabilities at \$29,357 and no assets, except clothing worth \$75. Among his debts were \$1,600 owed to twenty-eight doctors and \$350 to three dentists.

Beginning with August the *Louisville Journal of Surgery and Medicine* and the *Louisville Medical Monthly* will be consolidated, and issued under the name of the *Louisville Monthly Journal of Surgery and Medicine*.

The "Journal of Tuberculosis," edited by Karl von Ruch, B. S., M. D., Asheville, N. C., is a quarterly of unusual interest, in view of the present status of the question. We have received the second number. A. H. McQuilken, Asheville, N. C., is the publisher, and the annual subscription is \$1.00.

"Hippocratic Oath."—The Arlington Chemical Company is sending out a very unique souvenir in the shape of an engraving of the famous "Hippocratic Oath." Properly framed it makes a very nice ornament for the physician's office.

Changes in the Faculty of the Medical College of Virginia.—At the meeting of the Board of Visitors, Dr. H. H. Levy, who has for many years filled the chair of Physiology, was transferred to the chair of Practice of Medicine, made vacant by the recent resignation of Dr. John N. Upshur.

Morestine entitles a case he describes in *Wratsch* (No. 25, 1898), "Martyrology of a Patient." The adnexæ were removed from a young woman, in 1894, and during the years since she has returned to the hospital a number of times with a succession of phlegmons and fistulæ in thigh, abdomen and vagina. She at last returned in perfect health, bringing with her a hemostatic forceps 12 cm. in length, which had been spontaneously evacuated per anum after a sojourn of four years in her abdomen.

The American Electro-Therapeutic Association will hold its Ninth Annual Meeting at Washington, D. C., September 19th, 20th, 21st, 1899. The President, Dr. F. B. Bishop, has appointed the following Committees of Arrangements:

Drs. D. Percy Hickling, Chairman; Jos. Taber Johnson, G. Lloyd

Magruder, Z. T. Sowers, Robert Reyburn, G. Betton Massey, Chas. R. Luce, Elmer Sothoron, Llewellyn Eliot, Clifton Mayfield.

Willard's Hotel has been chosen for the headquarters, and special rates have been made for all interested in this meeting.

Drs. G. W. and J. L. Kernodle, of Elon College, N. C., have purchased the justly celebrated Grayson White Sulphur Spring, of Carroll Co., Va., and are building a large hotel for the accommodation of persons seeking health or pleasure. The building will be open August 1st. As a remedy for dyspepsia and rheumatism the waters of these springs have won their laurels.

A Step Backward in Tennessee.—The legislature in Tennessee recently amended the medical-practice law so as to admit to practice without examination all graduates of reputable medical colleges in that State. Graduates of colleges outside the State must pass an examination before obtaining a license. The legislature will not meet again for two years, so there is ample opportunity for increasing the stock of incompetents in the State before a new restriction law can be passed. One of our Tennessee contemporaries says that the law was amended because some of the examiners had threatened to pluck all the graduates of a certain local medical school who might appear before them. A poor remedy for a bad disease.

MOCKSVILLE, N. C., July 17th, 1899.

Editors of North Carolina Medical Journal, Charlotte, N. C.

SIRS: I write this to ask the profession to make some investigations as to whether or not those who are raisers and *curers* of tobacco are subject to phthisis. I have never known a tobacco *curer* to have or die of phthisis. As you doubtless know, the barns are made very tight and often heated to 180 or 200 degrees. Now, has this hot air impregnated with the vapor from the green tobacco anything to do in preventing the disease by destroying any spore, germ or tuberculous deposits.

Respectfully,
M. D. KIMBROUGH, M. D.

[Doctors in tobacco sections, let us hear from you in regard to this matter.—EDS.]

University of Pennsylvania.—Dr. James Tyson has been elected Professor of Practice of Medicine; Drs. John H. Musser and Alfred Stengel Professors of Clinical Medicine, and Dr. Gwilym G. Davis, Assistant Professor of Applied Anatomy.

J. J. GRANT, M. D., Monticello, Fla., says: I find nothing in the *materia medica* to equal ALETRIS CORDIAL in uterine diseases. I have used it in a very obstinate case, which outstood several important remedies. When I put the patient on ALETRIS CORDIAL every diseased symptom disappeared in a week's trial. I have used it in several cases, and can, therefore, say, that it is an active and powerful agent for diseases of the womb.

Book Reviews.

The following list of valuable publications, by W. B. Saunders, Philadelphia, are now in press and will be reviewed as soon as they appear :

The International Text-Book of Surgery. In two volumes. By American and British authors. Edited by J. COLLINS WARREN, M. D., LL.D., Professor of Surgery, Harvard Medical School, Boston ; Surgeon to the Massachusetts General Hospital, and A. Pearce Gould, M. S., F. R. C. S., Eng., Lecturer on Practical Surgery and Teacher of Operative Surgery, Middlesex Medical School ; Surgeon to the Middlesex Hospital, London, England. Vol. I. Handsome octavo volume of about 950 pages, with over 400 beautiful illustrations in the text, and 9 lithographic plates.

Heisler's Embryology. A Text-Book of Embryology. By JOHN C. HEISLER, M. D., Professor of Anatomy in the Medico-Chirurgical College, Philadelphia. 12mo volume of about 325 pages, handsomely illustrated.

Kyle on the Nose and Throat. Diseases of the Nose and Throat By D. BRADEN KYLE, M. D., Clinical Professor of Laryngology and Rhinology, Jefferson Medical College, Philadelphia ; Consulting Laryngologist, Rhinologist, and Otologist, St. Agnes' Hospital. Octavo volume of about 630 pages, with over 150 illustrations and 6 lithographic plates.

Pryor—Pelvic Inflammations. The Treatment of Pelvic Inflammations through the Vagina. By W. R. PRYOR, M. D., Professor of Gynecology in the New York Polyclinic. 12mo volume of about 250 pages, handsomely illustrated.

Abbott on Transmissible Diseases. The Hygiene of Transmissible Diseases : their Causation, Modes of Dissemination, and Methods of Prevention. By A. C. ABBOTT, M. D., Professor of Hygiene in the University of Pennsylvania ; Director of the Laboratory of Hygiene. Octavo volume of about 325 pages, containing a number of charts and maps, and numerous illustrations.

Jackson—Diseases of the Eye. A Manual of Diseases of the Eye. By EDWARD JACKSON, A. M., M. D., late Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine. 12mo volume of over 500 pages, with about 175 beautiful illustrations from drawings by the author.

The *International Text-Book* will present a complete treatise on the theory and practice of surgery in its most advanced aspects. There is a real need among practitioners and advanced students for a work on surgery, encyclopedic in scope, yet so condensed in style and arrangement that the matter usually diffused through four or five volumes shall be given in one-half the space and at a correspondingly moderate cost.

In his *Pelvic Inflammations*, Dr. Pryor directs the attention of the general practitioner and specialist to a surgical treatment of the infectious pelvic diseases of women. The subject is a most important one, inasmuch as inflammatory lesions constitute the majority of all pelvic diseases.

Kyle on the Nose and Throat, *Heisler's Embryology*, and *Jackson's Diseases of the Eye* are practical text-books for students, written by men of long and successful experience as teachers of these branches.

Special features of Dr. Kyle's book are the logical classification of the diseases, the modern pathology illustrated with new and original cuts, and the extended consideration given to details of treatment.

Abbott on Transmissible Diseases, is an important and timely contribution to the literature of preventive medicine.

Progressive Medicine, Vol. II.—A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 472 pages, 46 Illustrations and 3 full-page plates. Lea Brothers & Co., Philadelphia and New York.

The second volume of *Progressive Medicine* is to hand, and the favorable opinion formed of the first issue is amply justified by the present one. This method of presenting the progress of scientific medicine is highly satisfactory, the style is flowing and easy and devoid of anything like a dry catalogue of isolated facts or theories presented to the reader in a crude or ill-digested form. The editor is certainly to be congratulated upon his success in avoiding this defect, to which a work of this character is peculiarly liable.

We call attention to the following carefully prepared and exhaustive papers contained in the present volume :

Surgery of the Abdomen, including Hernia. By William B. Coley, M. D., of New York City.

Gynecology. By John G. Clark, M. D., of Philadelphia.

Diseases of the Blood, Diathetic and Metabolic Disorders, Diseases of the Spleen, Thyroid Gland and Lymphatic System. By Alfred Stengel, M. D., of Philadelphia.

Ophthalmology. By Edward Jackson, M. D., of Denver.

The Anatomy of the Central Nervous System of Man and of Vertebrates in General.

By PROF. LUDWIG EDINGER, M.D., Frankfort-on-the-Main. Translated from the Fifth German Edition by WINFIELD S. HALL, Ph.D., M.D., Professor of Physiology in the Northwestern Medical School, Chicago, Assisted by PHILO LEON HOLLAND, M.D., Instructor in Clinical Neurology in the Northwestern University Medical School, Chicago, and EDWARD P. CARLETON, B.S., Demonstrator of Histologic Neurology in the Northwestern University Medical School, Chicago. Illustrated with 258 Engravings $6\frac{1}{2} \times 9\frac{1}{2}$ inches. Pages xi-446. Extra Cloth, \$3.00. THE F. A. DAVIS CO., PUBLISHERS, 1914-16 CHERRY ST., PHILADELPHIA.

The present volume is the latest translation of Prof. Edinger's work, the former translation being made by Prof. Riggs. The work, which was originally intended mainly for medical men, now contains matter which is most necessary to the general student of neurology or of physiological psychology. The author explains in his preface that by comparing animals low down in the vertebrate series the attempt is made to determine where particular structures appear, how they vary, and what functions they may perform at different stages of their development. It has also been attempted to determine what belongs to each *separate* part of the nervous system as *essential* and *fundamental*. It is an attempt in which the author believed himself justified, in view of the fact that he had been occupied ten years in studies in the realm of comparative neurology.

A Text Book of Anatomy. By American Authors. Edited by FREDERIC H. GERRISH, M. D., Professor of Anatomy in the Medical School of Maine at Bowdoin College. In one magnificent imperial octavo volume of 915 pages with 950 engravings in black and colors. Cloth, \$6.50, net; flexible water-proof binding for the dissecting table, \$7.00, net; full leather, \$7.50, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

We feel safe in saying that we have never reviewed a work with more pleasure than has been afforded by the above volume. Gerrish's Text-Book of Anatomy has several features of salient interest to American physicians. While the profession in America has produced many great works in other branches of med-

icine, we have heretofore depended largely upon foreign writers for text books on anatomy. The present volume, however, is written entirely by American authors, professors of leading colleges. Another divergence from ordinary works upon this subject is the elimination of the large mass of practically useless material usually found in text-books on anatomy. This has simplified the subject and added much to the conciseness of the text, without, so far as we have been able to discover, the omission of any important anatomical facts. As a reference book for practitioners, it is superior to any similar work of which we have any knowledge, while the arrangement, and illustrations, of which there are the greatest abundance, will make it a great favorite with the student of anatomy. The plan of printing the name directly upon part to which it refers, has been adopted with manifest advantage. Students especially will be interested in the handsome new flexible waterproof binding which enables them to lay the book against the cadaver and use it as a dissecting guide, for which it is also adapted by a novel and ingenious arrangement in the text. It can be sponged clean indefinitely without injury. The publishers have endeavored to produce as perfect a book as possible regardless of its cost to them, and they at once anticipate an extraordinary sale and assure its realization by joining great value with moderate price.

The Cosmopolitan for July: Charlotte Perkins Stetson presents a vigorous reply to Prof. Peck's article on "The Woman of To-day and To-morrow" in the June *Cosmopolitan*. Frances de Forest tells of some American women who have married titles, and gives their portraits. There appears also the third prize essay on the organization of the home. This was given first prize in that class of essays which limited the cost of living to \$2.50 a day.

Scribner's Magazine for August is the usual Midsummer Fiction Number, and is remarkable for its color-printing, its brilliant pictures by young artists, and the high excellence of its short stories, which are representative of the best work of the most eminent American writers.

Richard Harding Davis tells a love story of a young play-wright in London, under the title of "The Lion and the Unicorn."

Henry Van Dyke on his many fishing trips to the Lake St. John region, gathered material which he has woven into a French-Canadian story, which has "a flavor of fresh-cut pine logs."

"The Trail of the Sandhill Stag" tells how the love of the chase grew and developed in a boy, but with far higher results than mere love of slaughter. The story is well told by Ernest Seton Thompson, author of that delightful book, "Wild Animals I Have Known."

"The Spectre in the Cart," a lynching story, by Thos. N. Page; "Little Italy," (illustrated in color) by Vorse; "A Royal Ally," another O'Connor story by Browne, complete the fiction. The number also contains the conclusion of Senator Hoar's article on Daniel Webster.

The American Monthly Review of Reviews for July is an extremely interesting number. In addition to the Reviews, it contains an able paper, "The Truth of the Philippine Situation," by John Barrett, late Minister to Siam; and a sketch on "Gold in the Philippines," by Ramon Reyes Lamon; "Scenes of Spanish Occupancy in our Southwest," by George Wharton Jones (with scenic illustrations and Indian Portraits); "Rosa Bonheur and Her Work," "Modern History and Historians of France," and "Brick Paving in the Middle West."

Review of Medical and Surgical Progress.

Treatment of Hemorrhage in Typhoid Fever by Saline Transfusion.

Dr. Carl H. Andersen reports in the *Philadelphia Medical Journal* what he claims is the first recorded instance of the treatment of intestinal hemorrhage in typhoid fever by means of transfusion of normal salt solution. The following is Dr. Andersen's report :

Corporal T., Company L, 5th Ill. Vol. Infantry, was admitted August 27th, 1898, from the camp of volunteer troops at Newport News, Va.; diagnosis "enteritis." Prior to arriving at Newport News this man came from the camp at Chickamauga, suffering from "enteritis," so that when finally removed to the General Hospital at Fort Monroe, Va., his case had become desperate. On the day of his admission his morning-temperature was 102.4° and evening temperature about the same. His stools were typical typhoid stools, spleen greatly enlarged, tongue characteristic, rose-spots on abdomen tympanites; thus no difficulty was experienced in diagnosing his case as typhoid fever. He was immediately placed upon my usual treatment. Given as nourishment 2 ounces of milk every 2 hours and as stimulant 2 drams of brandy in 2 ounces of water every 2 hours. Strychnin nitrate was administered in doses of $\frac{1}{80}$ of a grain every 4 or 5 hours as occasion demanded. The fever ran a regular course; delirium set in; the patient had violent twitchings of face and hands; skin was clammy; tympanites increased and he appeared on the verge of collapse.

Turpentine stupes were applied and oleum terebinthinæ was administered in 3-minim doses every 4 hours. Calomel was given in 2-grain doses. On the 26th day the temperature rose to 106.2° F. in the axilla in the evening, and to 103° F. in the morning. On the 29th day the patient had a copious hemorrhage from the bowels. He exhibited great depression and again appeared on the verge of collapse. His skin was cold and clammy. Normal salt-solution was administered in the rectum every 6 hours with very fair results. I then decided on transfusion. The normal salt-solution heated to 106° F. was placed in a clean fountain-syringe, properly elevated, a glass pipet point attached to the end of the rubber-tubing and the liquid gradually introduced into the median basilic vein. The fountain-syringe was elevated 3 feet above the patient and a quart of the salt-solution injected. The pulse grew stronger, the body warmer, and the result attained was generally satisfactory. Strychnin nitrate in doses of $\frac{1}{80}$ grain was administered every 2 hours. Brandy was given in the usual doses every 5 hours. Rectal enemas and strychnin were kept up all night and next day. The strychnin was reduced the next day.

On the 31st day the patient began to improve greatly, when another hemorrhage occurred. No pulse could be felt in the wrist. A quart and a half of normal salt-solution was then injected into the median basilic vein. The temperature of the solution on this occasion was 105° . The patient's

temperature at the completion of the transfusion was 104.2° F. The result was extremely good on this occasion. Hot-water bags were applied; strychnin given in doses of $\frac{1}{80}$ grain and rectal enemas of normal salt-solution continued. On the 35th day another large hemorrhage occurred. The nurse on this occasion thought the patient dead. No pulse could be felt in the wrist. The face was cold and clammy. Hot-water bags were at once resorted to; the patient was wrapped in woolen blankets; strychnin was increased and finally a quart of normal salt-solution was transfused. The patient did not rally so well as formerly and normal salt-solution at a temperature of 108° F. was transfused. As the patient complained of pain in the region of the heart after a quantity of the solution had been injected, the fountain-syringe was lowered somewhat and the transfusion proceeded with more slowly. The improvement upon this occasion was very marked. Albumen-water and milk were administered freely as nourishment. The patient gradually improved, but on the 39th day he had two very severe hemorrhages, one at 10 a. m. and another at 3 p. m. Transfusion was resorted to after each. One quart of normal salt-solution was injected on each occasion. The results attained were fair. Hot-water bags and turpentine-stupes were resorted to. Stimulants were kept up and nourishment forced as much as possible. Brandy and strychnin continued to be the stimulants used. On the 45th day another but smaller hemorrhage occurred. Transfusion was again resorted to. On the 47th day a quart and a half of the solution was transfused. At this time the temperature of the patient was 102.5° F.

From this time on the patient steadily improved. His appetite was good at all times except 12 to 16 hours after the transfusion, when he rejected all food. It was then administered by the rectum. On the 50th day the patient's temperature was 100° F. in the morning and 105° F. in the evening. The treatment now consisted of: Five ounces of milk every 2 hours; $\frac{1}{80}$ of a grain of strychnin nitrate every 2 hours; $\frac{1}{160}$ of a grain of digitalin every 4 hours, and the usual amount of brandy every 2 hours. Albumin-water was freely administered. On the 55th day large abscesses (not bed-sores) appeared on cheek, side, leg and other parts of the body. These were opened, the pus removed and the parts aseptically dressed. On the 62nd day a large abscess of the finger occurred and necrosis of the bone was developed. The bone was removed and the wound healed quickly.

Up to this time all temperatures had been taken in the axilla.

On the 70th day the patient was given milk-toast in conjunction with the albumen-water and milk, brandy, etc., formerly allowed. The temperature of the patient was now (taken in mouth) 99.5° F. in the evening and 97.5° F. in the morning. From this on the temperature remained normal. The abscesses which had formed all over the body did not recur and on the 78th day the patient was able to sit up for the first time.

From this time his convalescence was rapid and complete.

Gangrene from Carbolic Acid Dressing.—Dr. Leipziger, of Burlington, Iowa (*Va. Med. Semi-Monthly*), calls attention to the long-continued appli-

cation of dressings moist with solutions of carbolic acid. In view of the great popularity of carbolic acid as a family remedy in cases of cuts and bruises, this danger becomes quite important. It is not necessary that the solution be very concentrated. In one case in his practice a young woman who had cut slightly the tip of the little finger, wrapped the finger with a cloth saturated with a solution of the acid, 20 or 30 drops to the ounce. This dressing was kept on only twelve hours and resulted in gangrene of the second and third phalanges, requiring amputation. In another case the big toe was dressed with a patent salve, which appeared to the author, from the odor, to contain a considerable quantity of crude carbolic acid. Eight hours after its application the entire surface of the distal phalange was purplish and very numb. The dressing was immediately stopped, and in the course of eight or ten days the circulation was partly restored.

Management of Pulmonary Hemorrhage.—(Norman Bridge, So. Cal., Prac.) If the bleeding is only slight in amount, not only should nothing be done for it, but the patient should be assured in the most positive manner, that it is salutary. As the patient is almost sure to be made nervous by it, he may be advised to refrain from much exertion at those times, to eat sparingly and be quiet, to the end that a small hemorrhage shall not become a large one. In the treatment of severe hemorrhage the pressure is to be reduced until a clot may be formed in the ruptured vessel. The author rarely uses aconite or veratrum. The patient should be kept recumbent and his nervousness quieted by morphia, hypodermatically, preferably with atropia. While the morphine may increase the blood-pressure slightly, as it dilates the peripheral blood vessels, tranquilizes the patient and removes fear, its advantages outweigh its disadvantages. The surface vessels may be dilated and the blood drawn from the center by hot applications, either dry or moist, by free evacuations from the bowels by means of a large enema; but this may be most quickly accomplished by the application of a ligature at the junction of the thigh with the body. This should be applied only tightly enough to cause dilatation of the veins but not to cause the limb to become purple. After a number of hours, and after the excessive bleeding has ceased, these should be slowly relaxed and the blood allowed to return to the body. Many of the drugs prescribed for excessive hemorrhage are useless and some worse than useless. In the latter class belongs ergot, the use of which in grave hemorrhage the author says savors of malpractice. Its action is only to cause the contraction of the unstriped muscular fibres in the blood-vessels and so increase the pressure.

Two Interesting Cases of Empyema.—(Dr. W. J. Breeding, Taylors, Tenn., in *Medical News*.) The first case was that of a man, aged 45, presenting a large abscess pointing in the infrascapular region. On opening it discharged about three pints of pus and was found to communicate with the pleural cavity. Resection of a rib was advised, but refused by the patient. Later there occurred a profuse discharge from the bowel, the evidence of pus in the thorax disappeared and the discharge from the incised opening ceased.

The patient gained steadily for about thirty-five days, but finally died, evidently from an infection involving the gastro-intestinal tract. The second case is so interesting that we reproduce in full the author's report.

Miss A., aged eighteen years, student in a boarding-school. Family history good. Came under observation February 8, 1898. She gave a history of having been confined to her bed some three weeks, during which time she was very properly treated by a competent physician for pneumonia. The history and temperature charts, so far as I was able to ascertain, did not show a sudden crisis, but the continuance of an irregular temperature.

I found her very much amaciated, lying on the affected side, respiration about 24 per minute, pulse 120, and temperature in the afternoon 102.5° F. My physical examination revealed what appeared to be fluid in the pleural cavity, extending as high as the fifth intercostal space in the axillary line. I was informed that a microscopical examination had demonstrated the presence of tubercle bacilli in her sputum. In view of this opinion I was somewhat undecided as to the diagnosis, the question being whether it was consolidation from tuberculosis or empyema. I was inclined however, to the latter opinion. Repeated physical examinations revealed a gradual increase of the pathological condition upward until it had involved the entire left side. The absolute flatness on percussion, displacement of the apex downward and to the right, with other corroborative symptoms, led me to a positive diagnosis of empyema. The patient's condition at this time contraindicated the resection of a rib, so I decided to aspirate. On March 1st the needle was introduced between the eighth and ninth ribs, posteriorly, and something more than one pint of pus withdrawn. This aspiration was repeated four different times. Severe coughing and symptoms of collapse always prevented the withdrawal of more than one pint. These aspirations seemed to have a favorable effect on her temperature and general condition for a few days, when the symptoms and physical signs would return as before.

Realizing that more thorough drainage must be secured, on March 15th an incision about one and one-half inches long was made into the pleural cavity between the seventh and eighth ribs. Through this opening quart after quart of creamy pus was discharged. It was kept open by means of gauze packing, and after the opening became smaller an intubation-tube was introduced and retained by means of adhesive strips. Two days after this opening was made a rupture into a bronchial tube occurred, as was shown by pints of pus pouring from the mouth and the gurgling of air in and out at the external opening.

The patient now passed rapidly into a grave condition. Her pulse was 140 per minute, very irregular, and at times could not be counted at the wrist. Evacuations from the bowel and bladder were involuntary. She was unconscious and unable to swallow liquids for three days. Subsultus tendinum was very marked, her temperature was subnormal, and her abdomen became as tympanitic as a drum. Hypodermic injections of strychnin and nitroglycerin were given every three or four hours.

I gave an unfavorable prognosis. The friends made arrangements for the funeral and expressed a hope that death would soon end her suffering, as this end seemed inevitable. From this extreme condition she gradually regained consciousness. As soon as she was able to swallow, tablet triturations of calomel and soda were given with the object of partially disinfecting the foul alimentary canal, turpentine stupes were applied externally, and turpentine enemas administered. An excessive diarrhea ensued, lasting five days. The abdomen assumed a scaphoid shape, and her appetite became ravenous. On March 30th, fourteen days after the thoracotomy and the coincident rupture into the bronchial tube, the following report was made: Pulse, 106, much stronger and not so irregular; temperature in the afternoon, 99.5° F.; appetite good; urine three and one-half pints in twenty-four hours and normal in appearance. Two or three discharges from the bowels daily, showing good digestion. The opening discharges half pint daily. The cavity is packed with gauze twice in each twenty-four hours. The patient is anxious to sit up in a chair this morning, and wants to know when you will allow her to go home.

A physical examination the next day revealed unmistakable evidences of fluid at the apex of the lung, while the lower region being constantly drained, showed no signs of fluid. I was forced to the opinion that I had to deal with another pus cavity at the apex, which was undoubtedly separate and distinct from the one below, consequently a thoracotomy was performed, and more than a quart of pus withdrawn from this cavity. The opening was packed daily, with a continued improvement in the patient's condition for some two weeks, when evidences of fluid were detected between the two points mentioned. Another opening was made between the fifth and sixth ribs anteriorly on May 1st. The pus was very superficial in this locality, and could be seen pushing outward when the patient coughed. Large quantities of pus drained from this opening, with a much more rapid improvement in the patient's condition. She now had three openings into her pleural cavity, one between the first and second ribs, one between the fifth and sixth, and one between the eighth and ninth ribs. These openings were all packed twice daily with sterile gauze. When the packing was removed the patient's position was changed, and all the cavities drained thoroughly.

After the last operation her temperature remained almost normal, her pulse about 100, her appetite became ravenous, and her strength gradually increased until she was able to go to her home in North Carolina on June 18, 1898, three and one-half months after she came under my observation.

At my last examination I found the lung gradually expanding, and there were no symptoms of pus in the pleural cavity. She was instructed to keep the openings packed to prevent closing as long as a discharge continued. My last letter from her states that she is practically well, weighs 134 pounds, walks one and one-half miles to church, does housework at home, and expects to begin teaching school soon. All the openings have closed except the one at the apex, which still discharges a thin, watery fluid occasionally.

I think we can draw the following logical conclusions from this case: First, aspiration is useless except as a palliative and diagnostic measure. Second, thoracotomy is often preferable to the resection of ribs, or Eastlander's operation, in cases of extreme asthenia. Third, there is a possibility of recovery after rupture into a bronchial tube. Fourth, there is a possibility that distinct pus-cavities may be formed by pleural adhesions, and such cavities must be drained and treated as separate pus-cavities. Fifth, in cases of separate abscesses it is much wiser to make a simple incision between the ribs into the pus cavity when there is sufficient intercostal space rather than subject the patient to the very grave risk from an anesthetic and the resection of ribs for the purpose of drainage. Sixth, one should never despair of such cases, however desperate they may appear.

Enteralgia of Infants.—Enteralgia, or colic of infants, is most common between the first and fourth months of infantile life, and is not only a cause of great distress and fatigue to the mother, but of much pain and suffering to the infant. Usually the infant has one attack in twenty-four hours, and the attack may recur at regular periods, either in the morning or in the evening, and may vary not only in duration but in severity. The attacks are always sudden, and the infant, while apparently comfortable, will suddenly utter sharp, piercing screams, which continue for twenty minutes, or perhaps an hour, and are then interrupted by a few moments of ease, only to have all the symptoms of colic return with increased pain and distress. The efforts of the mother to soothe or calm her babe are of no avail; the babe continues to cry and scream; it will take the breast for a minute, and then quickly let it go, and will throw itself violently back upon its mother's arm, and continue its distressing and piercing cries until every one about the nursery becomes nervous, and anxious to do something to relieve the little sufferer. During a paroxysm the infant will rapidly draw up its legs and knees, then as rapidly extend them, and if the hand of the mother or nurse is placed upon the abdomen, it will be found to be swollen, hard, and knotted; and gas can be heard moving about in the intestines. Passage of this gas, either by the mouth or anus, is usually a sign for an abatement of the paroxysm. Generally the hands and feet become cold, and drops of cold perspiration break out upon the face. The bowels are sometimes constipated, but most frequently they are loose, and the evacuations present a thin and frothy appearance. The face often indicates, by its expression, the severe suffering of the babe, and is either pale or flushed. While these distressing symptoms always end without serious injury to the babe's general health, they occur and recur regularly at about the same time every day for weeks, and sometimes months; and in order to mitigate the suffering the mother or nurse usually gives the babe stimulating potions or opiates. As a rule I have regarded these attacks as pure colic, arising from altered or vitiated secretions of the intestinal canal, but cases are now and then met with which are neuralgic, and the distinction which I make between colic or enteralgia and neuralgia in infants consists in the symptoms. In

infantile neuralgia of the bowels there is no escape of gas, the bowels are not distended or the secretions altered, and the abdomen is not distended with gas or flatulence.

Treatment.—Nothing affords a mother more delight than to have prescribed for her babe something that will relieve and cure these terrible attacks. If of a purely neuralgic character, these attacks can be not only cured but prevented by the administration of cinchona, or some suitable form of one of its various preparations, but when the attacks are colic or enteralgia, I rely for its cure upon a mixture of equal portions of lactopeptin and subnitrate of bismuth. During the first month of infantile life I usually give a half grain each of lactopeptine and subnitrate of bismuth every hour during the attacks. I direct the mother to place the powder made of this combination upon the babe's tongue every hour, and continue it whenever the child is awake until the recurrence of the colic is entirely prevented. After the first month I give two grains each of the lactopeptin and bismuth every hour. I commence this treatment during the attacks, and after a few doses the babe soon gets quiet and goes to sleep. I instruct the mother or nurse to persevere in the administration of these powders, and in a few days she will be rewarded by the pleasure of finding that her babe escapes the daily attacks of terrible colic.—*J. B. Johnson, M. D., of Washington, in Southern Clinic.*

A New Method of Anæsthesia.—The manifest disadvantages of ether and chloroform at times, and the marked limitations to the use of local anæsthetics, have caused no end of anxiety to the surgeon when confronted by unusual conditions. That a way of relief has been ingeniously contrived would seem to be found in the device recently advocated by Bier, of Kiel, in the *Deutsche Zeitschrift für Chirurgie*, April, 1899. He adopts Quincke's method of lumbar puncture after preliminary local anæsthesia by Schleich's infiltration, and injects into the sac of the spinal cord small quantities of a dilute solution of cocaine, using from one-tenth to one-sixth of a grain. This seems to influence the spinal ganglia and the root zones and the medullated fibres before they emerge from the cord, and produces a complete analgesia below the line of injection, which comes on from eight to ten minutes after the injection. By using this method he has been enabled to do major operations without pain, and yet the patient does not lose the sensations of touch and temperature. Osteoplastic operations on the knee and ankle and hip joint, resection of the femur, necrotomy of the tibia, and resection for osteomyelitis of the femur were performed without pain and with entirely satisfactory results. The author has experimented upon himself and a colleague, and reports that thus far the only untoward results obtained have been those due to a loss of the cerebrospinal fluid. This happened in his own case by self-experimentation, and he was confined to bed for some days, suffering from dizziness, headache, nausea, and vomiting when he attempted to assume the upright posture. Since the experiments along the line of lumbar puncture have been so numerous it is by no means improbable that a method can be

devised to overcome this disadvantage, and the device after further experimentation and perfecting will undoubtedly open up new fields in surgery.—*Medical Record*.

The Practice of Medicine in its Proper Light.—We quote the following from the *Clinical Reporter* for February: "What are we practicing medicine for? Is our profession a business or a pastime?" These are questions put by *The Medical Examiner* in an editorial that appears in its current issue in defense of commercialism in medicine. "Is our profession a business or a pastime?" Neither, essentially, my Lord! Our profession is "first, last, and all the time" a *profession*. Incidentally it may, in rare cases, be a pastime; it is, in most instances, a means of making a livelihood, and so far, incidentally, a business; but the relations which it establishes are relations of a peculiar personal trust on the part of the patient not only in the skill, but also in the personal honor of the physician. It is this element of personal trust which, above all, distinguishes a profession from a mere business, and which forbids all devious methods, all commercial systems of offering or receiving commissions from other professional men, specialists, etc., for cases referred. It will be a sorry day for the medical profession when the majority of its members will look upon it as primarily a business—a sorrier day for their patients!—*New York Medical Journal*.

Opium in Diarrhea of Young Children.—It is contraindicated—1, in the first stage of acute diarrhea before the intestinal canal has been freed from decomposing matter; 2, where the passages are infrequent and of bad odor; 3, when there is a high temperature or cerebral symptoms are present; 4, when its use is followed by elevation of temperature or the passages become more offensive. It is indicated—1, when the passages are frequent, with pain; 2, when the passages are large and watery; 3, in dysenteric diarrhea, together with castor oil or a saline; 4, in later stages with small, frequent, and nagging passages; 5, when the passages consist largely of undigested food, and the bowels act as soon as food is taken into them.—*Crandall*.

Treatment of Cardiac Dropsy.—Borgherini (*Deut. Arch. Klin. Med.* Bd. 61, 624).—The treatment of high degrees of dropsy in cardiac diseases not yielding to ordinary measures is difficult. Various mechanical appliances have been employed and are certainly efficacious in removing fluid from the legs. The best known is perhaps Southey's tubes, but simple puncture is also efficacious. The great drawback is the danger of sepsis leading to diffuse cellulitis, and suppuration of the subcutaneous tissues. Such accidents are but too apt to follow the introduction of metallic tubes and their retention in oedematous tissues, even when antiseptic precautions are adopted.

Borgherini has modified an old method of dealing with the cases in question, which promises to be valuable. After carefully cleansing the legs, as if for a surgical operation, four incisions are made in each limb, one at each side of the malleoli and two in the calf. Each incision is two or three centimetres long and reaches the subcutaneous tissues. The wounds are

covered with aseptic gauze and a thick layer of absorbent cotton, over this are a sheet of rubber and bandage. The rubber is applied so that a small part of the heel is uncovered. The patient sits on the edge of the bed or on a chair with the feet down, and the fluid drains away into a basin under the uncovered part of the heel. The dressings are changed every twenty-four hours. The duration of the treatment varied from twelve to eighteen days. After the fluid had drained off, the wounds healed readily. A remarkably large quantity of fluid sometimes escapes. The method is applicable in renal as well as cardiac dropsy.

An excellent result was obtained in a case of heart disease with anasarca of the legs and abdomen and gangrenous erysipelas of the legs, the result of a cantharides plaster. There was also fever, diminished urine, and congestion of the liver and lungs. As the usual remedies, including purgatives, proved of no avail, and as the erysipelas was spreading, incisions were made as described above. In three days the erysipelas was arrested, œdema and ascites diminished, the urine increased, the pulse improved, and the dyspnoea diminished. In three other cases improvement resulted from a similar method of treatment. Untoward effects seldom occur and are not of much moment. This plan of treatment is naturally not one to be used indiscriminately and is unnecessary unless the usual methods have failed.—*Montreal Med. Jour.*

Death of Mr. Lawson Tait.

The death of Mr. Lawson Tait, which occurred at his country residence in Wales on June 13th, removed from the surgical world one of its most conspicuous figures. It is doubtful if any man in any age ever made a more profound and enduring impression upon surgical science and practice than he; and the original work that he accomplished during his career will ever remain a monument to his genius.

Mr. Tait was born in Edinburgh, May 1, 1845, and was educated at the University of his native city. He became a licentiate of the Royal College of Physicians and Surgeons of Edinburgh in 1866. In 1870 he became a Fellow of the Royal College of Surgeons of Edinburgh, and in 1871 a Fellow of the Royal College of Surgeons of England. He received later the degrees of LL.D. and Hon. M. D. in America. In 1871 he was appointed surgeon to the Birmingham (England) Hospital for Women, and Birmingham has been his home continuously until his death. He was Professor of Gynecology in the Faculty of Medicine of Mason College, and until recently had a private hospital of his own.

Mr. Tait was a man of wonderful energy, powerful physique, and possessed an aggressive boldness which made his influence felt immediately after entering the special line of work with which he became so prominently identified. All his work is marked by that power of genius which quickly brushes aside established opinion and enters upon new lines in new directions, that power of originality which creates anew. The results of his original methods of practice were at once so brilliant and his views so original and

unique, that in a short time he entirely revolutionized the practice of gynecology. Not only did he do this, but he devised the surgery of the gall-ducts and made original contributions of inestimable value to abdominal surgery. It would be impossible in a brief notice like this to even enumerate his splendid and original contributions to gynecology and abdominal surgery. He illuminated the pathology of pelvic inflammation in women, demonstrated the important role of the fallopian tubes in this condition, and demonstrated its successful treatment by abdominal section. He solved and elaborated the hitherto unknown pathology and treatment of extra-uterine pregnancy. He devised the only successful abortive and curative treatment of peritonitis by elimination, dispensing altogether with opium and substituting active saline catharsis. He was pre-eminently the champion of aseptic surgery.

Following closely upon Mr. Lister's methods, he demonstrated the imperfections of chemical antiseptics, the local damage of chemical germicides upon the tissues exposed, and brushed away the cumbersome paraphernalia of antiseptic surgery, substituting therefor the simplicity of surgical cleanliness, sterilization by heat, and exclusion from the operative field of infectious materials. Not only did he work out all these obscure surgical problems, but by his brilliant operative work, aggressive personality, and combative disposition, established his teachings firmly in surgical practice. No greater monument is needed to perpetuate the memory of any modern surgeon than his contribution to the pathology and treatment of extra-uterine pregnancy.

Like all the work of true genius, his elucidations were perfect. All attempts to supersede them by new interpretations and modifications have failed, and his original surgical work remains to-day unaltered in any important particular by the antagonisms he provoked or the elaborate criticism and labor bestowed by workers in every country.

He had in marked degree the eccentricities of genius, and certain obliquities of character which were difficult to condone. He provoked many unnecessary antagonisms, and was impatient of all restraint. He antagonized almost the entire profession in Great Britain by his public advocacy of the fallacy of the anti-vivisection craze.

These, however, are but the accidents and eccentricities of a great genius and strong character, which in time will fade from memory. His fame will rest upon his splendid contributions to pelvic and abdominal surgery.—*L. S. McMurtry, in The Louisville Journal of Medicine.*

Dr. W. R. Wood, of Scotland Neck, died July 11th. He was born in Washington county in 1834, and received his medical education in Philadelphia. From '90 to '95 he had charge of the hospital for the insane at Raleigh.

Cocaine Poisoning is best treated in the recumbent position—amyl-nitrite, and aromatic spirits of ammonia in water, slowly sipped.—*Med. Summary.*

Therapeutic Hints.

Acute Gastric Catarrh :

R Bismuthi subnit.....	7	(gr. x.)
Potassi bromidi.....	1	(gr. vx.-xx.)
Ac. hydrocyanici dil.....	3	(m. v.)
Spt. choloformi.....	6	(m. x.)
Mucilag. acaciæ.....	8	(℥ ij.)
Aquæ.....q. s. ad 30		(q. s. ad ℥ j)

M. Sig.: To be taken every three or four hours about ten minutes before food.—*Brunton.*

Stomatitis in Smokers :

R Salol.....	1	(gr. xv.)
Tinct. catechu.....	2	(gr. xxx.)
Spir. menth pip.....	50	(℥ iii.)

M. Sig.: A teaspoonful in a glass of warm water as a mouth wash.

Hay Asthma, With Cough and Difficult Expectorating Following Exposure :

Ammon chlorid.....	15	(℥ iv.)
Tinct. hyoscyami	} āā 4	(℥ i.)
Syr. scillæ comp.		
Syr. senegæ.....		
Syr. tolutanæ...		

M. Sig.: Teaspoonful every three hours.—*Dr. Eshner.*

Pelvic Congestion :

R Magnes. sulphatis.....	30	(℥ viiss.)
Ferri sulphatis.....	5	(℥ ij)
Magnesiæ sulph.....	8	(℥ ij.)
Acid sulphur. dil.....	1	(mxiv.)
Aquæ destil.....	120	(℥ iv)

M. Sig.: A tablespoonfull before breakfast in a wineglass of water.—*Riforma Medica.*

Lupus :

R Sod. sulphoichthyolat.....	2	(gr. xxx.)
Aquæ.....	100	(℥ iii.)

M. Sig.: Inject 1 c. c.—*Unna.*

As an Analgesic in Myelitis :

R Ichthyol.....	0	50 (gr viii.)
Aquæ destil.....	10	(℥ iiss.)

M. Sig.: Inject one cubic centimetre every second day.—*Dujardin-Beaumetz.*

Children's Emetic (Six to Ten Years) :

R Pulv. ipecacuanhæ.....	5	(gr. viiss.)
Antimonii et potassii tar-	or	(gr. ½)
tratis.....		
Oxymel scillæ.....		
Aq. dest.....q. s. ad 30		(℥ i.)

M. Sig.: One teaspoonful every ten minutes until vomiting occurs.—*Baginsky.*

Acute Colic:

R Tinct. opii deodorat.....	4	(℥ i.)
Chloroform.....	6	(℥ iiss.)
Camphoræ.....	3	(gr. iv.)
Ol. cajuputi.....	4	(℥ i.)
Aquæ.....	60	(℥ ij.)

M. Sig.: One teaspoonful every hour.

Treatment of Scabies.—Dr. S. Sherwell of Brooklyn, in a paper before the American Dermatological Association, condemns the treatment of scabies

by irritant ointments of various kinds. He urges the adoption of a method which he declares is "better, cleaner and easier." The patient is instructed to take a thorough bath, after which sandsoap is to be used upon the tougher portions of the integument. A half teaspoonful of powdered washed sulphur is then rubbed over the entire skin-surface. The same quantity should be placed between the bed-sheets and shaken so as to evenly distribute the powder. This should be repeated for several nights, a cure being usually effected in a week. The writer has never seen a dermatitis follow this treatment. He also advises its use as a prophylactic measure whenever an individual is exposed to scabies.

Headache :

R Antipyrine, grs. xxx.

Sodii Salicylat, ʒi.

Cinnamon Water, q. s. ad ʒ.

Teaspoonful as required for an adult.

Retention of Life.

The following interesting case is taken from the Journal of the American Medical Association :

The possibility of the retention of life and consciousness for any time after complete severance of the body above the hips, has not been much raised in medical literature, and naturally observations of such an occurrence are rare. Not long since there appeared a sensational paragraph in the newspapers in regard to a young man surviving hours after having been cut in two by a train. As our confrère Dr. Gibbon's name was mentioned in connection with the case, we wrote him in regard to it, and received the following report :

CHARLOTTE, N. C., July 18, 1899.

TO THE EDITOR :—The patient, a young man of about 20 years, from the western section of North Carolina, attempted to board a passenger train in rapid motion. Losing his hold he fell across the rail, and the wheels of several trucks passed over his body, completely crushing the pelvis and lower portion of the abdomen, and the right arm above the elbow. The accident occurred at night about twenty miles north of Charlotte, and the unfortunate man lived about thirty minutes after reaching this place, surviving his injuries about one hour. When seen by the writer, in a crowded passenger station, the man was perfectly sensible, answered all questions and complained bitterly of thirst. His face was expressive of the greatest anxiety and restlessness, and he was entirely pulseless. There was no hemorrhage, although the mangled muscles of the lumbar and gluteal regions hung from the side of his cot.

The situation being unfavorable for a minute examination of the extent of his injury, I am unfortunately unable to confirm what was afterward told me by the trainmen, that the lower extremities were completely severed at the pelvic brim, from the remainder of the trunk. The undertaker has also assured me that he placed first the upper portion of the body in the coffin and then the legs attached to the pelvis. My own examination of the man, while

living, however, showed that the wheels of the car had passed directly over the lower part of the abdomen, of course crushing everything to pulp, though I did not suppose at the time that the section of the body was complete. I have no reason to doubt, however, that such was the case, and greatly regret that I did not insist on a removal of the body and a post-mortem inspection of the injury.

Very truly yours,

R. L. GIBBON, M. D.

Other instances have been reported where a few minutes were stated to have elapsed between complete severance of the trunk and death, but this interval is the longest we have seen as yet reported. A crushing injury such as is produced by being run over by car wheels may possibly so occlude the blood-vessels as to prevent too extensive hemorrhage at once, and if collapse and death do not at once occur, life may continue until the slightly later effects of the injury have appeared. Such cases, however, rarely survive long enough to come under medical observation. As Dr. Gibbon says in his letter, accompanying the above report, it makes really little difference whether the parts were completely severed or still held together by shreds of tissue, but the sensational character of the accident depends on the former being the case.

Surgical Use of Cocaine.

The following practical observations are quoted by the *American Therapist* from the *Codex Medicus*:

1. The use of cocaine should not be abandoned because its irrational employment has produced deleterious results.
2. Always make a thorough physical examination of the patient before injecting the drug.
3. It should not be used in cases showing organic disease of the brain, heart, lungs, or kidneys, or in persons of neurotic diathesis.
4. Children bear it fully as well as adults.
5. The patient should always be placed in a recumbent position prior to its employment.
6. Constriction should be used whenever possible to limit the action of the drug to the desired area.
7. Use a freshly prepared solution for each case.
8. Distilled water should always be employed, to which phenic, salicylic, or boric acid should be added.
9. A 2 per cent. solution has a better effect and is safer than solutions of greater strength.
10. Never inject a larger quantity than $1\frac{1}{8}$ grains when no constriction is used.
11. About the head, face, and neck $\frac{1}{3}$ of a grain should never be exceeded.
12. When constriction is possible, the dose may be as large as 2 grains.
13. Every slight physiological effect is not necessarily to be taken as cause for alarm.
14. Cocaine does have effect upon inflamed tissues.
15. In case alarming symptoms occur, amyl nitrite, strychnine, digitalis, ether, or ammonia.

To which we will add: Always use a chemically pure product, free from isotropyl and cinnamyl-cocaine as well as other impurities, the presence or absence of which can be readily ascertained by the simple tests of the United States Pharmacopœia.—*New England Medical Monthly*.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, AUGUST 5, 1899.

No 3

Original Communications.

Juvenile Criminals.

BY DR. THOS. F. COSTNER, Lincolnton, N. C.

II DESIRE to present this subject to your consideration, not because I expect or can hope to offer anything new, but because of its great and ever-increasing importance, both to this Association, and to the State and society at large.

Our State has taken on a new life, and is just now developing its material resources and increasing its wealth and population with wonderful strides. So much so, that we are attracting the attention of the hitherto older and more advanced and progressive States and peoples. Our civilization should keep step with our material progress. And nothing more surely marks the true index of morality and higher civilization, than the attention paid by a people, and by the public authorities, to their poor and unfortunates, and to their criminals, those who must be restrained or reformed in order to protect society.

The medical profession has during the past decade made the greatest advances in its history, and has kept its place in the very van of the onward progress of civilization; in fact has marked each step in that progress by some new discovery or device to alleviate man's sufferings and to prolong his days, or increase his usefulness in life. We may justly feel a pride in the fact, that we have almost invariably been the pioneers who sounded the first note of warning and who led the fight for the great reforms in the laws for the benefit of humanity.

Our State has for many years neglected to properly look after and care for a large class of unfortunates, and the duty has again devolved on us, to call the attention of the people to this and to start a crusade, which with education and enlightenment, must eventually result in the enactment of more just and humane laws, for the treatment of the young class of criminals.

It is impossible to obtain any statistics in regard to the matter of crimi-

nals belonging to the juvenile class in our own State, as none have been kept of this particular class; the statistics, like the criminals themselves, have been jumbled and thrown together in one bunch. But the information to be gathered from the eleventh census, under the report on crime, pauperism and benevolence, and under the subdivision of juvenile criminals, as compared with the previous, or tenth census, shows us most assuredly that this class—of young criminals—is on the increase. Aside from the census, the very causes that produce and concentrate wealth among a few, increase the number of the poor, and the depths of poverty; and these last two results are in their turn the efficient and procuring causes of crime. If the class of criminals in general are on the increase, we may well assume, that the juvenile shares in this increase. But we have only to look around us in our daily life or step inside the criminal court room, to find how crime has infected the young, and how the number of this class is constantly increasing.

If we were permitted to study and trace the history and ancestry of many of these youthful criminals, we would probably find that in many instances, perhaps the majority, they themselves are not responsible morally, and ought not to be legally, for their first crimes. Their crime is the result of a physical and mental organism handed down to them from a criminal or defective ancestry, perhaps accentuated and increased through many generations. They are defects, were so at birth, must remain so through life, and if no proper method of treatment or restraint is thrown around them, will transmit their defects to their posterity in all probability, with the increased interest accumulated during a life of vice and crime. They are crippled in the start of life's race, unable to cope with or resist the temptations with which their pathway is beset, and an easy prey to the evil one. It may be the parent or some more remote ancestor, or a long line of ancestry, were defectives, either vicious, a drunkard, an epileptic, or in some other form a defect. Such persons as these are no more responsible, and should no more, from a moral standpoint, be held accountable for their crime than you and I. And so far from meriting the condemnation of the law, and the felon's chains and clothes and cell, they deserve the pity and sympathy of all mankind, and they should receive from the better class of our people that kind of treatment which will assist them to remedy the defects of nature and birth, and lead them towards higher and better ideals in life.

Our criminal laws, we are told, are based upon two cardinal ideas, punishment of the vicious and lawbreakers, as an example to deter others; and reformation of the offender. I fear sometimes, we have almost entirely lost sight of the latter element, and proceed in the enactment of laws for punishment, and in inflicting and carrying it out solely on the idea of making an example of the offender; and even at times another element seems to enter into the execution of the criminal laws, an element that ought never to be allowed to enter the mind or heart of a judge in dispensing punishment to the unfortunates, the idea of revenge, or a punishment to recompense, as it were, the State or some individual, for the injury inflicted by the offender.

To punish the class of juvenile criminals above mentioned and referred to, for the purpose of making an example of them, is utterly wrong in principle, is absolutely inhumane and cruel, and in its result must necessarily and does end, not in reforming the criminal, but in making him worse. In dealing with juvenile offenders, we ought to have the single object in view of reforming the offender, and in the meantime restraining him from doing injury to society. He should be taken charge of upon the commission of his first offense, placed in the care and custody of those peculiarly fitted by skill and experience to study and deal with his defects; and every endeavor made, which skill can invent, or wealth and means provide, to remedy his defects, and to restore him to his place in society when, and only when, it is safe and prudent to do so. The strongest moral influences should surround him, while thus restrained; such a system of merits, rewards or compensation for industry, good behavior and improvement should be devised, as would quicken and develop and stimulate the better and higher moral and intellectual powers; powers, which even among the criminals, are often only dormant, and need to be aroused and put in action, in order to engage the attention of the man or youth, and to drive out or tend to dispel, the vicious elements in his make up. It is unnecessary to say to any who have stopped to reflect on human nature, or who have observed it in their everyday life, that there is hope of reforming even the older offenders, and there is great hope of so changing and moulding the mind and even the heart of youthful criminals as to make of them useful and even valuable members of society. A wide field of usefulness, hitherto unoccupied in our State, is open along this line to those who wish

"To soften the weight of adversity's touch
On the faded cheek of their fellow-man."

Our treatment of this class of offenders is the very reverse of what it should be. Upon their first offense, in some instances, yes in many, when we take into consideration their surrounding environments, their antecedents and their capabilities, when they hardly have an idea of society and no conception of the law's demands, they are taken and confined in a jail, filled with older and more hardened criminals, reeking with filth and unwholesome and repulsive surroundings. In many instances they remain there until the court meets which will try them, or if they do not remain during this preliminary period, at the trial they are sent back there or to the penitentiary with similar surroundings. And when this same criminal in after years is called up before the same or some other bar of justice, for another or second offence, the fact that it is his second offence is laid to his charge, his punishment is increased because he did not reform; when in reality the State and the laws enacted by the governing powers have placed in his pathway every obstacle possible to his reformation, in the very method and manner of punishing him for his first offence.

Certainly no cause is a more efficient or prolific source of crime than evil associations and companionship with the bad. Our English cousins have

long since discovered this evil, and made provision to remedy it to some extent at least, by providing a separate sleeping apartment for each criminal, old or young, confined in their prisons or penal institutions. We ought to follow their example in this matter, and especially ought we to keep all young offenders, both during their confinement preliminary to their trial, and when under final sentence, away from the vicious and criminal elements, and surround him with those influences and associates which make for good. Association is a powerful factor in society; if wielded for good, its influence extends beyond the conception of man; if for evil, its blighting impress is likewise immeasurable.

According to the last census report, twenty-five States and the District of Columbia had some means for caring for juvenile criminals, either such as were provided by law, or by individual charity. Perhaps the best known, as it is reputed to be the best managed institution of the kind, is the New York State Reformatory, at Elmira. We are reliably informed that the superintendent of the institution is a man of the highest skill and qualifications for this kind of business; that the management of the institution is fortunately kept outside of politics and its influence, which is often so destructive to the progress and systematic development of such and similar institutions. The criminals who are sent there are sent under an indefinite sentence, there being simply an extreme limit; that is they cannot be kept there beyond the maximum time which they could be confined in prison, and they may be paroled or discharged at any time the officers of the institution under the regulations thereof deem it proper. Every inmate of the reformatory is made the subject of the most thorough study. The history of his life and of his ancestry as far back as it can be traced is gone into; all his habits, his prejudices and his weaknesses are most carefully studied. He is surrounded with the best of influences, and his time and thoughts are occupied with such employments as are deemed best suited to correct the causes which lie at the foundation of his crime. A complete system of merits and of marking along every line, with the ultimate object in view of paroling and finally discharging him when he has attained the degree of perfection required by their rules and standards, and this hope and the rewards attending each onward and upward step are constantly before him as an inducement to progress and development. When he has attained the required degree of advancement, he is first paroled, and a place found for him to obtain employment, but he is still under the surveillance and oversight of the institution and his history is carefully followed; if he goes to another town or city, the police are notified, and are required to keep trace of him and report regularly and constantly his progress. If he makes any, even a slight lapse, under the authority granted them by law, he is forthwith sent back to the reformatory, and goes through a similar training. The reports show the most satisfactory results, and also show that the average time of confinement in this reformatory is considerably less than for like criminals in the ordinary prisons.

Viewed from the point of cost, the maintenance of this reformatory may

seem rather expensive, but we will find it only seemingly so, when we look to the number of inmates. While we may not be able to induce our law-makers to start on so extensive a scale, it is time the start was made. It is a duty every good citizen owes to his more unfortunate fellow-creature; it is a duty our law-makers owe to their constituents and to the State and society, to establish in our borders just such a reformatory.

One thought more I desire to suggest for the consideration of this body, on the same subject, that is, how best to restrict and restrain the marriage of defectives, and criminals, and the propagation of their defects. I see one of the Western States has recently enacted a law preventing and prohibiting altogether the marriage of defectives and criminals. Such a law is undoubtedly founded upon the highest wisdom, and will be of inestimable value to society, if it can be carried out. How to best enforce such laws, and how to make them of practical utility, will doubtless require great time and patience, after such laws are once enacted ; but before they can be enacted a great deal of educational work must be done.

Our situation and training places us in a peculiarly advantageous position to see the needs of the reforms which I have briefly mentioned above. Our position and distribution throughout the whole country, and our contact with every class of people, places us in a position to wield the greatest influence in favor of these reforms, and in educating the masses of the people to their necessity. It is unnecessary to add, that with this peculiar knowledge and opportunity, a Higher Power has coupled and placed upon our profession the duty of bending our united and individual efforts to the accomplishment of this great end.

Ileocolitis and Dysentery.

By W. G. STAFFORD, M. D., Burlington, N. C.

ALTHOUGH fearful that some will be bored by my short article, I will venture to write you concerning ileocolitis and dysentery, quite a number of cases of which have recently come under my care.

Many and various hobbies have been ridden to death in the endeavor to have this or that remedy or regime adopted as a *sine qua non*, while humanity cries aloud in grief and anguish because of the annual tribute these conditions impose.

The ætiology and pathology seem to be well understood and hardly disputed in the face of the findings of the morbid anatomist ; and I shall not take up the space or the time to discuss them. Nor shall I say much as to treatment. I will say however, that, like in other morbid conditions, each case is a law unto itself, differing according to age, strength, stage of disease, and environment.

An aseptic condition of the alimentary canal is the ideal after which we strive. But how to attain this ideal and not kill or injure the patient, is the problem.

In their proper time and place, calomel, salicin, bismuth, salol, ipecac, creosote, guaiacol, and the much abused opium, have their proper uses, and therefore it is right to use them when indicated in their turn.

There is one remedy which I have, so far, used with increasing confidence; I refer to enemas of normal salt solution. The fluid should be injected very slowly into the bowel, the quantity varying according as we wish the clyster to be retained or not. If rejected it acts as a soothing wash, very cleansing, to the parts with which it comes in contact. If retained it serves to increase the blood-pressure, acting indirectly as a food; modifies osmotic action, thus checking the waste from the system and relieving the tenesmus which is such a distressing feature.

In my practice, for, say a child of the second summer, an occasional enema of a pint is given to cleanse the bowel and remove *Materies morbi*. Then an enema is given after every other action for a day or two, when, if the increasing or persisting tenesmus demands it, I repeat the larger quantity. The smaller enema, of about two ounces, is usually retained and absorbed. The child feels more comfortable and generally falls asleep, while the interval between the motions is much extended; and this extension is increased with almost every succeeding enema.

The salt solution should be used at a temperature of about 90° F., and, as said before, injected very slowly.

In closing, I must say that, after duly considering what has been said *pro* and *con* regarding bismuth *sub nit.* in large doses, my experience, covering a period of twenty-two years, is largely in its favor. In saying this I am not an empiric. The salt acts not only as a protective coating to the inflamed *mucosa*, but constricts the structures, especially the capillaries, thus abating congestion, and last, *but not least*, combines with and removes from the economy the toxic sulphuretted hydrogen.

Clinical Notes.

By H. A. ROYSTER, A. B., M. D., Raleigh, N. C.

1. *Labial Chancre*.—During the last three years I have seen two cases of chancre of the lip. One occurred in my own practice; the other was seen while under the care of another physician. Both sores were in young men—were situated on the lower lip and had been considered to be “fever blisters” at the start. I had reason to suspect venereal disease in these young gentlemen, but the diagnosis was rendered certain by the marked induration of the sores and their persistence, by the absence of pain, by the enlargement of the submaxillary glands on the affected side and by the subsequent development of secondary symptoms. Indeed the second case showed a general papular eruption at the time of my first examination. Extra-genital chancre is, to say the least, unusual. Its most frequent seat, excluding the rectal region, is the under lip, and, according to most authorities, it is more common in women than in men. Somewhere I have seen it stated that when the pri-

mary lesion is located on the lips or mouth, the course of the syphilis is usually mild. In the two instances here referred to such was the case. Morrow,* however, intimates that the prognosis is in general, more unfavorable with extra-genital infections, and thinks that chancres of the fingers especially indicate a severe type of the disease.

2. *Compound Fracture of the Lower End of the Femur, With Rupture of the Quadriceps Extensor Femoris.*—On the 19th of November, 1898, a colored boy of 12 years was brought to St. Agnes' Hospital.

Three hours before admission, while swinging behind a moving wagon, his right leg was caught between the spokes of a wheel and the limb badly crushed. Examination disclosed a ragged transverse wound, just above the knee, extending about two-thirds the distance around the thigh. The femur was fractured obliquely about two inches above the joint, and the sharp lower fragment was protruding through the wound; the soft parts were extensively lacerated, while the quadriceps extensor muscle was completely severed. The popliteal vessels and nerves escaped injury. There were severe abrasions of the skin below the knee. Although it looked doubtful, yet, considering the good blood-supply and adequate innervation, an attempt was made to save this limb, which on superficial examination might have seemed to demand amputation. The parts were thoroughly disinfected, pieces of loose bone and other debris washed out and the fragments of the femur brought into apposition without anæsthesia, since the patient was dazed from the shock and only semi-conscious; the torn ends of the quadriceps were united throughout their whole thickness with catgut and the skin closed with silk-worm-gut sutures, having an opening at the most dependent place for a rubber drainage-tube. The condition of the skin below the knee forbade the use of extension apparatus, and a modified plaster trough was, therefore, applied. Primary union occurred along the line of suture, except around the drainage-tube, through which pus began to discharge after several days; for, in the words of one of my assistants, we "neglected to disinfect the wagon wheel." This suppuration necessitated the removal of the plaster trough, which was replaced by two long sandbags, one on each side. The discharge was very free at first, but was gradually controlled by deep irrigations of bi-chloride solution (1-3,000) and afterwards of hot normal salt solution. The leg improved rapidly and in five weeks the boy was walking on crutches, with only a half-inch shortening. Under careful massage and passive motion he slowly gained use of the movements of his limb, with good flexion and extension, and eventually with a very slight limp in his gait. This case is recorded to emphasize the fact that limbs thought to be beyond redemption may sometimes be preserved, and to show the perfect result secured from suturing a large muscle after extensive laceration and infection.

3. *An Unrecognized Rupture of the Uterus.*—While I was absent from the city in May, 1898, there was admitted to my service at Rex Hospital, a

*Jour. Cut. & Gen.-Urin. Dis., Apr. '96.

colored woman, from whose chart is copied the following: E. B., age 32 (?); has had three children, last one in September, 1895; no miscarriages. Her menses ceased in July or August, 1897—she does not remember exactly. In good health up to September, 1897, when she began to have spells of pain in lower abdomen and back, accompanied by very profuse sweating. Attacks lasted about a day and she would return to her work as a cook. After three or four such spells she was confined to bed, where she remained over a month. She was then taken to another hospital in which she stayed about three months, being treated by local applications to suspicious growths on her cervix uteri. Toward the latter part of December, 1897, began to think she was pregnant. While in bed at home (Sept. '97), she had slight discharges of blood from vagina, lasting a day or more, at times being absent for a week and then returning. Has never since been free from this discharge longer than two weeks. Felt foetal movements for the first time in December, 1897, and continued to feel them until a week ago. The day before admission she had a severe hemorrhage and was taken to the hospital, a distance of 7 or 8 miles, in a wagon. At my first examination I found the patient very weak; her pulse was rapid and feeble; the temperature showed a septic course; she was extremely emaciated and, at times, delirious. The abdomen was uniformly enlarged, somewhat fluctuating and so tense that palpation gave no further information. The cervix was hard. Even with the history above related it was impossible to say positively whether the woman was pregnant or not; however, giving her the benefit of the doubt, an effort was made to induce labor, but without success. The patient's condition was such as to preclude the hope of saving her by further operative procedure. She sank rapidly and died—a result which would only have been hastened by an abdominal section at any time in the few days she was under my observation. The autopsy revealed a ruptured uterus, the whole anterior wall of the organ being sloughed off and a full-term foetus floating free in the peritoneal cavity, which contained a large quantity of foul fluid. This case is remarkable from the fact that the woman's uterus could have been ruptured without her being aware she was in labor and that she survived so long after its occurrence. It is fair to presume that the accident happened at the time (May 9) of the "severe hemorrhage" mentioned in the history, and yet the patient did not succumb until May 25, more than two weeks afterward. Sharp ridges projecting from the pelvic bones have been known to sever the walls of the womb, and the administration of ergot during parturition has been responsible for uterine rupture; but by far the greatest number are "the direct result of uterine contractions and over-distention of the lower segment of the uterus," as first pointed out by Bandal.* According to this patient's story, which was pumped out of her piecemeal and is open to a suspicion of inaccuracy, she was at or past her full term. The explanation would seem to be that she fell into labor unawares and that there existed some abnormal presentation or some other mechanical impediment, which produced the rupture. No deformity of the pelvis was observed.

323 W. Morgan street.

*Amer. Text-Book of Obstet. P. 611.

Anæsthesia By Suggestion.

By J. H. FOUTS, M. D., Franklin, N. C.

MARY M., colored, æt 26, primæpara, in good health and of medium size. When first seen by me had been in labor about thirty hours.

On examination I found twins, membranes ruptured and one shoulder presenting. I concluded to try cephalic version, so I got my chloroform bottle and to my dismay there was not more than a dram in it. I was about eight miles from a drug store and the woman was having expulsive pains; therefore, I thought I would try to deliver with what I had.

I put a part of what there was on a handkerchief, gave her a few whiffs, handed it to a midwife, and proceeded to try to turn by cephalic version.

The chloroform was soon gone and the child still in the same position.

I now began to try podalic version and patient began to scream and beg for chloroform (the handkerchief had long since been removed from her face). I gave the mid-wife "the nod" and told her to give her plenty of it. As she placed the handkerchief to her nose I said, "Now shut your eyes and go to sleep." In less than ten seconds she was in a profound slumber, and remained so without moving a muscle until the child was turned, that being I think about eight minutes. There was not the least odor of chloroform on the handkerchief when applied this time.

She now awoke and called for more chloroform. I repeated the words as quoted above, and immediately she fell asleep.

The after-coming head now gave me trouble, and while trying to deliver it she again awoke and called for chloroform.

I now began to prepare my forceps, my patient lying there looking at me. When ready I again ordered chloroform and also ordered her to go to sleep; she did so at once. I applied the forceps and delivered the head without a groan or a movement of the mother. She was soon awake again; the other child presented normally and was soon born without aid on my part. Both well developed, but first one dead.

Deflections of the Nasal Septum.*

By THOMAS C. EVANS, M. D.

Lecturer on Ophthalmology, Otology and Laryngology in the Kentucky School of Medicine, etc., Louisville, Kentucky.

II SHALL not dwell upon deformities and disfigurements due to deflections of the nasal septum, nor the ills and inconveniences dependent thereon.

Among deformities may be mentioned deformity of the nose, distortion of the face, contraction of the alveolar arch, and dental irregularities.

The important complications and sequelæ are: mouth breathing, disturbance of speech, chronic deafness, hay fever, frontal headaches, nasal hypersecretion, defective drainage, diseases of the accessory sinuses, pharyn-

*Author's abstract of a paper read before the Kentucky State Medical Society, 1898.

gitis and laryngitis, asthma, and the more remote reflex phenomena of chorea and epilepsy.

The diagnosis is apparent and its importance has long been recognized ; consequently, the energies of the profession generally and the rhinologist in particular have been concentrated upon treatment or correction. It has afforded a rich field for the inventors of new instruments, and the devisors of new surgical operations ; some are ingenious and plausible, many crude, cruel and irrational ; but the erring and misguided member withstood the onslaught of them all ; after being punched, fractured, incised, distorted and twisted, the deflection would return to plague both the patient and surgeon, until septal deflection became the *bete noir* of rhinology.

I will attempt to describe an operation which has given me the greatest satisfaction, and can, I believe, be safely and successfully performed in all cases of this deformity. The operation is substantially that devised by Morris J. Asch and described by him in a paper before the American Laryngological Society in 1890.

In order to make myself more fully understood, attention is called to drawings Nos. 1, 2, 3, and 4 ; and to instruments Nos. 5, 6 and 7.

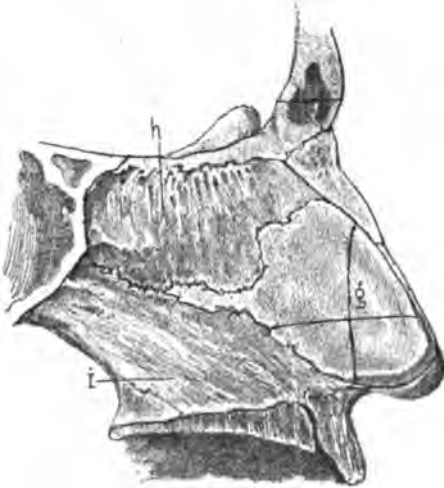


Fig. 1.



Fig. 2.

No. 1 shows the anatomical parts involved, the vomer, perpendicular plate of the ethmoid and the cartilaginous septum. The cartilaginous septum is divided by a conical incision to be described later. No. 2 shows the de-



Fig. 3.



Fig. 4.

formity with deflection to the left. No. 3 shows the condition at the completion of the operation, after insertion of the tubes. No. 4 shows the condition of the septum and nose two months after the operation. No. 5 repre-

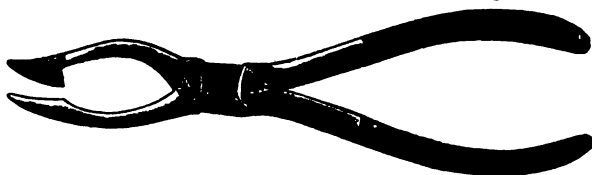


Fig. 5.

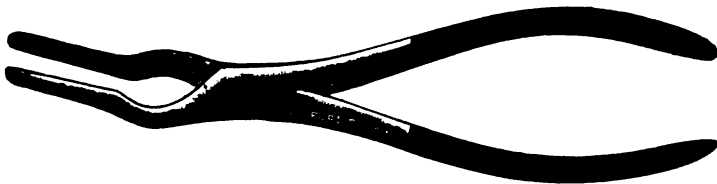


Fig. 6.

sents Asch's septal scissors ; No. 6, Adam's septal forceps ; and No. 7, Acsh's vulcanite perforated nasal tubes.

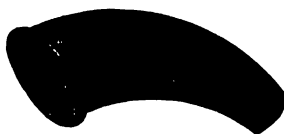


Fig. 7.

A general anesthetic will be necessary. As hemorrhage is quite profuse during the operation, the usual precaution in regard to the patient's position must be observed, as in all operations on the nose and throat under general anesthesia. The instruments necessary are : a pair of Asch's septal scissors (fig. 5), a pair of Adam's septal forceps (fig. 6), two vulcanite tubes (fig. 7), and a probe-pointed septal knife.

The surgeon passes his little finger into the stenosed nares to determine the extent of deflection, its point of greatest convexity, whether enchondrosis exists, and whether there are adhesions between the septum and the outer wall of the nose. If adhesions exist they should be dissected up before proceeding with the operation.

Having accurately located the apex of the deflection, the Asch scissors are introduced into the nose with the non-cutting blade in the stenosed side; the first incision is made through the septum in line of the greatest convexity and parallel with the floor of the nose; as the handle of the instrument closes the cutting blade penetrates the septum with a snapping sound, which clearly indicates that its work is completed.

The direction of the scissors is now changed and a second incision made through the septum at right angles to the first, and intersecting near its center. With the probe-pointed knife the horizontal incision is extended both anteriorly and posteriorly to the limit of the cartilaginous septum ; the vertical incision is extended in like manner. Completion of the crucial incision divides the cartilaginous septum into four imperfect, irregular and unequal triangles (fig. 1). An Adam's forceps is now introduced, one blade in either nostril, each of the triangular fragments of cartilage is caught separately and twisted on its base with sufficient force to loosen its articulation and com-

pletely destroy its resiliency. After the forceps are withdrawn the finger should be introduced to determine if resistance has been completely destroyed; if not, the forceps must be reapplied and the resisting fragment broken down. Want of thoroughness in this particular will defeat the object of the operation. The septal cartilage is exceedingly tolerant of traumatism and no fear of overdoing need be entertained.

When this part of the operation has been completed, the nasal cavities should be irrigated and all clots removed from the nasopharynx. The perforated tubes can now be introduced; on the stenosed side the tube should be of sufficient size to hold the flaccid and pliable septum in the desired position; on the other hand it should not be large enough to cause pain or unnecessary pressure. Care is necessary in introduction to prevent the tip of the tube passing through the crucial opening into the opposite nares instead of directly back into the stenosed side. A small tube should be introduced into the open side of the nares in order to give support to the septum and maintain the overlapping fragments in closer apposition until healing takes place.

Properly fitted tubes will be worn without discomfort, and are only noticeable on close inspection. With introduction of the tubes hemorrhage ceases.

After twelve to twenty-four hours the nasal cavities should be irrigated (through the tubes) with hot boric acid solution, repeated every two or three hours; the tubes removed on the third or fourth day and thoroughly cleansed; the nose sprayed with a weak solution of cocaine, and cleansed with alkaline solution; after which the tubes can be replaced.

After the first week the patient is able to remove, cleanse, and reinsert the tubes without the surgeon's assistance, and may safely be permitted to follow his ordinary vocation.

On the stenosed side the tube should be worn constantly for six weeks, when it can be removed during the day and worn at night for the next four or five weeks. The small tube (on the open side of the nose) may be removed at the end of the second week after the operation.

While the septal scissors of Doctor Asch greatly facilitate the operation, it could be performed with a bistoury or septal knife.

The dangers of the operation, aside from those due to administration of the anesthetic under the adverse conditions named, are practically *nil*. Pain and discomfort following the operation are inconsiderable.

Since adopting this method the results have exceeded my most sanguine expectations. As the excess of the cartilaginous septum is taken up by the overlapping and healing of the four fragments, a relapse or recurrence of the deflection is, I believe, an impossibility. If much enchondrosis exists on the convexity of the septum, it should be removed before straightening the septum is attempted. With this operation we can confidently promise an upright septum, entire relief of nasal obstruction, and cessation of the long list of symptoms dependent thereon. In addition, the external deformity will be greatly benefited if not entirely corrected.

SELECTED PAPER.

The Treatment of Uremia by Venous Section.

By JAMES C. WILSON, M. D.,
Professor of Medicine, Jefferson Medical College.

The following case, a young man suffering from chronic interstitial nephritis, was admitted to the hospital October 3, 1898. The most interesting thing about the case is the fact that he was sent here with the diagnosis of convulsions caused by excessive cigarette-smoking. The case was reported in the daily papers and has acquired much celebrity in consequence. How such a diagnosis was made I am unable to fathom, and the young man denies that he is a cigarette-smoker at all. He is a tobacco-chewer, but uses tobacco in no other form. His father is living and well, but his mother died of hemiplegia. In about forty per cent. of the cases of hemiplegia there is found to be disease of the kidneys also.

The patient came to the hospital with the history that about two months previously he had a number of convulsions, but recovered sufficiently to go back to his work as a machinist. It should be clearly set forth that he has no history of epilepsy; the arteries are thick and the arterial tension is very marked. The urine is yellow in color, slightly acid, with a specific gravity of 1010, and contains many casts.

This is probably a case of chronic interstitial nephritis, with an acute exacerbation of parenchymatous nephritis. We talk and read of this definite division of Bright's disease, but the majority of cases undoubtedly overlap; the forms of inflammation and the histological changes are mixed; so that we generally get a mixture of symptoms which sometimes may be confusing.

When it comes to a matter of treatment I always like to picture the condition as one in which the patient has been poisoned and for whom relief must come. In these conditions the kidneys have generally failed and the toxic materials are held in solution in the blood. Then it is necessary to fall back on the other excretory organs, the intestines and the skin. The use of hot-air baths for copious sweating and the use of calomel for active catharsis are indicated. In addition nerve sedatives are frequently indicated to lower the nervous irritability of the system; for this purpose I prefer chloral, although under exceptional circumstances morphine may be used.

But there is a class of patients, such as a woman in her first pregnancy, who is threatened with puerperal convulsions, or who is sinking into deepening coma, or in whom the next convulsion may be the last, in whom the indication is to bleed. In this patient, if his condition had not improved under the treatment he was getting, I would next have ordered a fillet to be thrown around his arm and had him bled—ten, twelve, or even sixteen ounces.

In the past hundred years the art of bleeding had its ups and downs, until

to-day it is largely discarded; but I have stood at the bedside of a great many patients during the past twenty years, and have seen numbers of them come back apparently from the grave under the use of judicious bleeding. In cases of poisons circulating in the blood, a man suffocating with illuminating gas or carbon dioxide, congestion of the lungs with acute ventricular distention, in uremia, which will not respond to other treatment, the use of the lancet has turned the scale. It is no great drain or shock to the system; the blood-making organs produce new blood quickly and easily. Even turning an exsanguined patient so that his head is down and his feet are up will serve to revive him to a marked degree.

Buchard has demonstrated that there are probably six or eight toxic principles in the blood under these circumstances which are having different effects on the various nerve centers. It is not the accumulation of water nor urea which does the damage. It is well at the present time not to speak too definitely of the toxic principles until further investigations have determined their character more decisively.

The rationale of blood-letting is almost self-evident; volume for volume it has been determined that there is forty times as much of the toxic material drawn off in the blood as by diuresis—that is, one pint of blood removes as much poison as forty pints of urine. When we consider how impossible it would be to get this quantity of urine, we are able to see the value of the venous section. In addition, when we remember that there is usually an acute process added to the chronic condition, we can judge of the urgency of the condition. No one can, for example, examine the kidney of post-scarlatinous nephritis, and see how it fairly drips blood, without seeing what a local congestion exists in these cases. I believe that too little attention is being paid to these conditions by the profession; there is a strongly marked tendency to consider these cases as hopeless. As I have said, I have seen too marvelous results obtained by blood-letting to discard it. In the course of a few hours the whole clinical picture may be changed by the judicious use of this discredited therapeutic agent.—*Medical Age*.

One of the last acts of the late Czarevitch, as we learn from the newspapers, was to publish a set of rules for consumptives. Himself a victim, he followed these rules most rigidly; the fear of imparting his disease became almost a mania with him, and none of his attendants were allowed to be on duty with him over two hours a day; the rest of the time they were obliged to spend looking after their health. He had collected, it is said, an extensive library on the subject of tuberculosis, which seems to have been the subject that most occupied his attention.

A Suggestion.—Every issue of the N. C. MEDICAL JOURNAL contains some items that are of interest to you, and a physician suggests a simple plan of "keeping track" of these items. Paste on the outer cover-page a slip of blank paper, and write on it the titles and pages of the articles that are helpful to you. You can then readily refer to any of these papers or items.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.
Editors and Proprietors.

W. H. WAKEFIELD, M. D.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.

J. HOWELL WAY, M. D., Waynesville, N. C.

J. ALLISON HODGES, M. D., Richmond, Va.

S. WESTRY BATTLE, M. D., Asheville, N. C.

GEO. G. THOMAS, M. D., Wilmington, N. C.

J. P. MONROE, M. D., Davidson, N. C.

R. L. PAYNE, M. D., Norfolk, Va.

H. S. LOTT, M. D., Winston, N. C.

J. W. LONG, M. D., Salisbury, N. C.

H. A. ROYSTER, M. D., Raleigh, N. C.

ALBERT ANDERSON, M. D., Wilson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

STANDARDIZED DRUGS.

The question of the adulteration of foods and medicines is ever an important subject to both physicians and the public, and we apprehend that both are alive to the necessity of a rigid exclusion of all such dishonest and often deleterious articles as are proven to be other than what they should be. To the physician the importance, not only of pure drugs, but drugs of standard strength and physiological activity, is not to be overestimated. Drugs are to the physician, in many cases, what tools are to the mechanic, and it needs no argument to show that neither can accomplish satisfactory results without reliable instruments of precision. It is a widely recognized fact that there is a very considerable difference in physiological activity in different specimens of the same drug—a difference ranging all the way from absolute inertness to highly concentrated strength. Fortunately the defect is usually on the side of inertness. The absence of any physiologic effects following the careful exhibition of some worthless preparation is undoubtedly responsible for much of the therapeutic nihilism in the profession, a condition of mind that is distinctly aggravated when, from the presence of extraneous substances, or the preponderance of certain principles of the drug, the effect upon the patient is disagreeable.

The Pharmacopeia of 1890, recognizing this variation in different specimens of the same drug, prescribes a standard of strength for certain drugs whose medicinal virtues are mainly dependent upon some active principle easily demonstrated by chemical assay. These drugs are opium, nux vomica and cinchona. The British Pharmacopeia (1898) in addition to the foregoing drugs, also establishes a standard for belladonna and ipecac. The U. S.

Pharmacopeia of 1900 will doubtless increase this list of standardized drugs, and it has been suggested that gelsemium, podophyllum, hyoscyamus, and stramonium could be as easily made to conform to an established standard by chemical assay, as opium or cinchona. It is unfortunate that quite a large list of important drugs is not amenable to chemical tests, no satisfactory method having been elaborated by chemists thus far for measuring their physiological efficiency. In many of these also, the therapeutic effects are not derived from any single active principle. This list would include such medicines as digitalis, strophanthus, cannabis indico, ergot, and others. To drugs of this class physiological tests have been successfully applied by a process of experimental administration to living animals in accordance with the usual precautions common in studying the physiological action of drugs, except that in this case, the action of the drug being already known, the effort is made to have it exert a certain degree of activity under given conditions. Such tests are perhaps too elaborate and expensive to hope that they will find a place in the next Pharmacopeia, but certainly all physicians are highly interested in anything that will add efficiency to their art, and while it is impossible to standardize our patients and their resistance to the invasion of disease, we can at least materially help ourselves by the official adoption of a standard for our medicines that will insure a definite degree of potency in all preparations of the same drug.

THE PHYSICIAN IN PUBLIC LIFE.

The practice of medicine is usually so exacting in its demands that but little time is left for the physician to take part in municipal or State affairs, or in fact in anything not connected with his profession. This feature of the doctor's character has become more accentuated in modern times, for we read that in the early history of our country members of our profession filled prominent positions in the nation. At the present time, however, due probably to the great increase in the number of physicians and the keenness of competition, the average medical man prefers to stick to his work rather than run the risk of losing his clientele by being led off into any pursuit not connected with his professional work. We were somewhat surprised therefore to learn that one of the busiest as well as one who had done much to advance certain branches of medical science, had found time to enter the political arena, where his words were as trenchant as though uttered in the halls of science.

The London correspondent of the *New York Record* has the following to say of the late Mr. Lawson Tait :

"It may, however, interest you to hear that he was at one time on the staff of a Birmingham daily paper, and always took an active part in the municipal affairs of his adopted home. He was on the town council from 1876 to 1885. The next year he was a Gladstonian candidate for Parliament, but the wave of unionism was too strong for him and he was badly beaten.

Under more favorable circumstances he might have succeeded, for he was a powerful speaker, with plenty of the controversial spirit, a ready wit, a caustic sarcasm, and an earnest manner which impressed his hearers with the idea that he was strongly convinced that his views were right. But perhaps he shone still more as an after-dinner speaker, when wit and geniality replaced sarcasm and argument."

The physician may occasionally attain literary success, as such notable modern examples as Weir Mitchell, Conan Doyle, or Oliver Wendell Holmes show, but he ordinarily does not have the making of a high order of the genus politician, and such success as he may achieve in this line is nearly always at the expense of his professional reputation.

MEDICAL TRUSTS.

The present tendency to the formation of combinations and trusts of all kinds is even invading the domain of medicine. In this city, at the present time, an effort is being made to organize a lodge which, among other benefits, confers that of free medical attention upon its members. The "Lodge Doctor" threatens to have an abode in our midst, unless the influence of the local medical society should prove a sufficient impediment to the perfection of this part of the scheme. Such a condition in medical practice would bear especially hard upon the younger members of the profession and those who are struggling to make a place for themselves. We also note that in New York City an organization has been formed, known as the "Manhattan Medical Service Company," which promises for an annual fee of two dollars to treat at the general consultation office of the company any person between the ages of 16 and 25. In case the member prefers to be treated at home, the "company's district physician" can be had by the payment of ten cents a week. This important servitor of the company, the "district physician," receives five dollars for every one hundred contracts issued by the company in his district, and seven dollars for every one hundred prescriptions he writes. These are not all necessarily individual, but family contracts are also included, so that the "district doctor" gets fifty cents per annum for attendance upon a family, however large, and seven cents for each prescription. These contracts are said to include obstetric and venereal cases.

A Physician Assaulted for Performing a Work of Mercy.—Dr. Froelich of New York was brutally assaulted one night recently by striking motormen of a trolley road, because he bandaged the head of a fellow-motorman, whom they had abused because he would not join in the strike. The doctor saw the man on the street with a long gash in his scalp and bound up the wound the best he could at the time and while thus engaged was told by the strikers to leave the "Scab" alone. After doing what he could for the wounded man he started home, but had not gone far when he was struck on the head with a brick and severely beaten by the crowd. Such actions as this on the part of the strikers will go far toward alienating public sympathy from their cause.

Medical News and Items.

Yellow Fever.—About the first of August the startling announcement was made that several cases of yellow fever existed at the National Soldiers' Home, near Hampton, Va., near Newport News and Old Point Comfort. It is not yet known just how the disease got there, but an old soldier recently from Santiago, who had entered the home early in July, is believed to have been the bearer of the infection. As we go to press we are informed that quarantine has been raised and that all danger of further spread of the disease has passed.

Changes at the Johns Hopkins.—At the commencement of the Johns Hopkins University, held on Tuesday, June 13th, there were thirty-three graduates from the medical school, two of whom were women. The changes in the medical faculty announced for next year were as follows: J. Whitridge Williams, associate professor, will be professor of obstetrics; Lewellys F. Barker, associate professor of anatomy, will be associate professor of pathology; Ross G. Harrison, associate, will be associate professor of anatomy. Several new assistants were also appointed, also the internes and externes of the hospital, as well as the resident house-officers.

The Destruction of Mosquitoes With Kerosene.—Mr. Howard, of the United States Department of Agriculture, proposes to destroy those vexatious vehicles of malaria, mosquitoes, by sprinkling kerosene oil over their breeding ponds. The *British Med. Jour.* reports an interesting experiment along this line. Four drops of kerosene added to a bucket of water containing four or five hundred larvæ killed them all in an hour, and a teaspoonful killed within a few hours the many thousand contained in a large water-tank.

A Stutterer Cured.—Private H. E. Redwood, who is now serving in the Philippines, was, when he enlisted, so affected with stuttering that the recruiting officer was tempted to leave him off the rolls. At the battle of Mariquina he was shot in the face, the bullet passing through his mouth, and making its exit near the back of the neck. He recovered from the wound, and it is stated that he now stutters no more, and that he is busy completing the telling of stories which he had never been able to finish on account of his halting speech.—*Med. News.*

An Up-to-date Aseptic Confinement.—Dr. A. Ernest Gallant, in order to show the extremes to which some go in their enthusiasm over aseptic midwifery, described the elaborate preparations which a certain physician had made in anticipation of his wife's confinement. Three months before the expected time he began his preparations by having a hard-wood flooring laid in the third story of his house, the walls, ceiling, and doors enamelled, glass knobs put on the doors, and new furniture, of the hospital type, installed. A new set of instruments was purchased, and a gas-stove and fish-kettle provided for their proper sterilization when required. The pads, eye-wipes, tape, absorbent, and other material for dressings were sterilized and delivered at the house in sealed packages. Just before the confinement the sheets, towels, gowns, and clothes to be worn by the patient were sterilized by exposure to steam for two hours, and the room, furniture, and utensils were disinfected with formalin gas. The patient herself was prepared as for a vaginal operation. The nurses wore cotton gloves, and the obstetrician rub-

ber gloves. Owing to premature rupture of the membranes, the labor was instrumental, but the patient had a satisfactory convalescence.

[The fools are not all dead yet.—EDS.]

Dr. Thomas Osmond Summers, late surgeon-major in charge of the fever hospital at Santiago, and a noted yellow fever expert, committed suicide by shooting himself through the head at St. Louis, June 19th. Despondency, caused by the fancied lack of appreciation of his services by the Government during the Spanish War, is said to have been the cause. Dr. Summers was Professor of Anatomy in the St. Louis College of Physicians and Surgeons, and was the author of several standard medical works. He gained an enviable reputation in his successful management of the yellow fever epidemic at Memphis in 1878. The agony of mind that Dr. Summers evidently suffered previous to committing the fatal act, was shown by a most touching farewell letter to his wife, and his farewell to earthly existence is forcibly and poetically expressed in the following lines, which were found after his death:

PERDITI VITUM—VALE MUNDUM.

Good-night, Old World—Good-by to all your joys,
Your sorrows, pleasures, passions, pomps, and noise.
I leave you for the eternal silence of stars;
The deepness of unbounded space where bars
No longer hold the soul in durance vile.
Where naught can wound and nothing can defile;
Where the pure spirit shall despise the things
The sense on earth hath loved.
On wings bathed in the ether of eternity,
How sweet to feel from every passion free—
And yet it is an awful leap to take:
Into the great unknown perchance to wake
To greater woes, indeed, than those we have
And hoped to bury in the silent grave.
But still the great majority is there.
Why then should we turn pale with fear,
Or tremble when the hour supreme has come,
As soon or late it must be?—Man's final home—
The grave—at least gives rest from troubles here,
And we may hope for sweet oblivion there.
Then, Charon, come, I signal thee to-night,
Come—row me o'er the Styx, I've lost life's fight.

OSMOND.

—*Medical News.*

A Method of Rendering the Hands Surgically Clean.—Dr. Willard Bartlett (*Medical Review*) advises to cleanse the hands as fully as possible with hot water, soap and brush; then apply vaseline, which has been boiled in a glass jar, and rub off the surplus with a sterilized towel, taking particular care to rub the vaseline into the depressions around the nails and under the ends of the same. The hands may now be dipped with impunity into any antiseptic solution, with the result that the exterior of this impermeable coating is rendered aseptic and fit for contact with a wound, while the skin itself, with germs that may be upon it, is completely covered. The author claims that six months use of the above means of rendering the hands fit for use in surgery has given most satisfactory clinical results, and promises a bacteriological report in the near future. [Certainly the first part of the procedure is most excellent.]

Book Reviews.

Retinoscopy or (Shadow Test) in the Determination of Refraction at One Metre Distance with the Plane Mirror. By JAMES THORINGTON, M. D., Adjunct Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine, etc. Third edition, revised and enlarged. Forty-three illustrations, twelve of which are colored. Philadelphia: P. Blakiston's Son & Co., 1899. Pp. xviii-19 to 86. [Price \$1.]

THE first edition of this little book was published in 1897, and met with a gratifying success. The present edition contains forty-three illustrations, twelve of which are colored. It is not intended to take the place of the more elaborate works on skiascopy, but is mainly intended for undergraduate and post-graduate students. There are six chapters and a good index. The success of the previous editions has proved it to be a useful little work.

Warner's Pocket Medical Dictionary.—Warner's Pocket Medical Dictionary is an up-to-date work in every sense of the word. The latest medical terms have all been added, 10,400 words, terms and phrases are spelled, pronounced, and defined. The definitions are concise and comprehensive. Type bold and easily readable. Paper and binding neat and especially serviceable. Bound in flexible leather, round corners, colored edges. Complete tables of arteries (6 pages), bacilli, spirilli, streptococci, micrococci, bacteria (11 pages), muscles (24 pages), nerves (12 pages), dose table (14 pages). This latter comprises a complete list of all drugs with their doses arranged in apothecaries' measure and their metric equivalents. Every one of its 413 pages is well written and will prove a valuable addition to the library of quick reference books of any physician. It will be sent to any address upon receipt of 75c., stamps or money order.

Address, W. R. Warner & Co., Philadelphia.

An "Original" Statement of Account.

August 5, '99.

Mr.

U O M E

To date

.....Dollars.

An early settlement is requested.

Dr. W. T. S. Vincent.

The above has proven a good collector for me. I got it up some time since and it has become popular here. They don't have to look twice at it to know what it means.

DR. W. T. S. VINCENT.

Jacksonville, Fla.

—Med. World.

Mr. Smith (*bent into the shape of an interrogation point with hepaticcolic*)—

"Oh Doctor, dear Doctor—gee whizz! ouch! great Scott!

My guts are tied up in a double bow knot!

I'll give you all I've got in this world with delight,

If you'll help—O—oo—oo!—help me out of this plight!"

And the doctor soon eased him and solved every doubt,

And tenderly watched him, till "up and about."

The doctor (*one year later*)—

"Mr. Smith, I am very hard up, would you care

To pay me a little, if you have it to spare?"

Smith (*in an injured tone*)—

"Pay you? Ah yes, I remember it now,

But I'm sure I'd got well just the same anyhow;

You must wait till I've paid much importanter debts,

Such as club dues, and pew rent, and lost 'lection bets."

—Dr. W. C. Cooper, in *Eclectic Medical Gleaner*.

Review of Medical and Surgical Progress.

The Treatment of Hairlip and Cleft Palate.—This much-discussed topic continues to be the subject of a good deal of doubt in many minds as to when and how to operate for the various conditions that present themselves. Many of the procedures necessary are entirely within the range of the general practitioner, but there always remains a feeling of hesitation as to the methods most advisable to employ, and the most suitable time for operation. Towards solving such doubts, an authoritative review of the recent literature of the subject, and conclusive statements as to what seems best in the therapeutic suggestions that have been recently offered by various writers, will be of the greatest value to the busy practitioner.

Such a review of the treatment of harelip and cleft palate is given by Dr. J. Chalmers DaCosta, in "*Progressive Medicine*," the new Quarterly Review of Advances in Medicine, of which Professor Hare is the editor. From it we gather that the tendency is more and more towards early operation. The third or fourth month used to be considered the earliest suitable time to operate. Murray now counsels operation in the fourth week; Mumford and Heath think it should be undertaken not later than from the sixth to the eighth week. Where cleft palate exists it is not operated upon so early. The harelip is operated upon alone, and the persistent pressure made by the closed lip helps to lessen the gap in the growing bone. The operation on the cleft palate is put off for a while, but this, too, not nearly so long as it used to be. If the closure of the defect is delayed until the child has learned to talk, the peculiarities of speech, especially its offensive nasal character, will never be corrected. The authorities are agreed, then, that a cleft in the soft palate should be closed about the sixth month, and in the hard palate during the second year.

The practical suggestions collected from the recent literature of the subject by Dr. DaCosta are very valuable to the ordinary practitioner. Space will permit us to give but a few of them. The use of the knife in operation rather than the scissors, because the latter crushes tissue more, leaving its vitality impaired, especially at the edges where this is so important for subsequent union; the avoidance of pins or heavy sutures in securing proper apposition after the operation is advised, though these are faults of technique in this matter that we fear have been so ground into the present generation by text-book and teacher that failures of union due to these crude early methods will still continue to be frequent. The suggestion by Mumford as to anchoring the nares with shotted wire will remove a very common cause of failure due to the child's inevitable tendency to "turn up its nose" at and after the proceedings.

In double harelip it is advised to remove the intermaxillary bone by sub-periosteal operation a week before the operation on the lip. If left it is liable to undergo necrosis. Its removal leads to some flattening, but this will not be great if the bone be removed by sub-periosteal operation, and if but one side of the harelip be operated upon at a time. Among the directions for the operation for cleft of the hard palate, we note these pre-operative measures of precaution from Owen, which are sometimes forgotten, but of which the practical value is easy to see: Never operate unless the child is in the best possible health; remove carious teeth, adenoids and enlarged tonsils before operating, and operate whenever possible in fine weather, so that the patient can get out of doors soon afterwards. The neglect to remove such

ready sources of infection as carious teeth and those harborers of microbes, the irresistible tissues of adenoids and enlarged tonsils, is very probably the source of a good many of the failures in uranoplastic osteo resection.—*Progressive Medicine*.

Protargol and Argonin in the Treatment of the Purulent Ophthalmia of Infants.—Dr. Edward S. Peck, in the *Medical News* of January 21st, presents a very interesting report showing the efficacy of these new preparations of silver in the treatment of purulent ophthalmia. Of all the germicides employed in the treatment of this disease, silver nitrate has always held the first place, but, unfortunately it cannot be employed in the strength of solution required on account of its severely irritating properties. Silver nitrate comes about midway between protargol and argonin in the amount of silver contained, having 6.35 per cent., while protargol has 8.3 per cent. and argonin 4.2 per cent. The advantages of the newer preparations over the nitrate are thus enumerated by Dr. Peck: (1) The quicker destruction of the gonococcus; (2) the earlier disappearance of the secretion and the inflammatory process; (3) the resolution of the injured corneal and conjunctival tissues. Each of them is described as "a proteid compound, solutions of which cannot be precipitated by sodium chlorid, or by albuminous fluid." Protargol is a yellowish powder, soluble in either hot or cold water, producing a clear solution. Argonin is a white powder readily soluble in water on slight warming, but its solution is turbid. Protargol keeps well in powder or solution; while argonin decomposes if exposed to too much heat in the preparation of solutions, and when decomposed is very irritating; it is said also not to keep well in solution, even in dark bottles. Protargol solutions of 0.25 to 2 per cent. are generally used; while the most effective solution of argonin is 3 per cent. In the treatment of cases of purulent ophthalmia, the usual precautions in regard to isolation and the protection of the uninfected eye should be employed; ice cloths should be applied every minute or two, these applications being continued for an hour without intermission, when an interval of one, two, or three hours may be given, according to the severity of the attack. The eyeball, lid and conjunctival sacs should at first be thoroughly irrigated with warm, saturated solution of boric acid. The protargol solution, at first 5 to 10 per cent. strength, should be carried rather forcibly over the eyeball and into the folds of the conjunctival sac by means of a large pipette; it should at first be used four to six times a day. As soon as the secretion lessens in amount, or becomes shreddy, while its fluid part becomes thinner, the protargol solution may be brought down to 2 per cent. and may be used less frequently. A successful result of such treatment would be a limitation of the disease to three, possibly two, weeks.

The Action of Alcohol.—Professor Attwater, of Wesleyan University, who has recently conducted a series of experiments to determine the effects of alcohol on the human system, has reached the conclusion previously held by all but the most rabid and unscientific prohibition advocates, that alcohol taken in small and digestible amounts is a food. The experiments were mainly undertaken with a view to determine the nutritive value of alcohol. This substance was given in various forms, and pure alcohol was also administered with water or coffee. It was taken with meals. It was found that alcohol is oxidized in the same manner as any other food material, and is transformed into heat and muscular energy. Unlike, however, the fats, starch, and sugar, it does not form tissue, but gives forth energy. The experiments were not conducted for a sufficiently long period to demonstrate what

the effects upon the human organism might be of the habitual use of alcohol, yet many writers in the daily press have assumed that they have proved the innocuousness of alcohol as a beverage. This is, of course, far from being the case, and the promulgation of any such belief would be nearly as injurious as is the other more familiar extreme advocated so strenuously by intemperate prohibition orators.

The Saline Treatment of Dysentery.—Dr. Buchanan is quoted by the *Therapeutic Gazette*, from the *Indian Medical Gazette*, as being a very strong advocate for the use of sulphate magnesium in the treatment of dysentery. In his opinion it acts by simply washing out the great intestine, so removing the causes of inflammation and inflammatory products. The drug is best given, he believes, in one-drachm or two-drachm doses every one or two hours.

When to Stop the Drug.—It is necessary to secure free, gentle purgation. Dr. Buchanan finds that as long as the stools remain yellow and loose or soft, the drug should be continued for one or two days. After the mucus and blood have entirely disappeared the quantity may be reduced. As soon, however, as the stools become thin and watery, the drug should be stopped at once. It is surprising how soon after this the stools become soft and solid. He would, however impress upon medical subordinates that for the successful use of this drug the stools must be seen once a day or oftener. In no other way can the effect of the drug be watched, and in no other way can we know when to stop it. Stools containing sloughs should be washed in a white dish or in a tin painted white inside. The frequent occurrence of green stools or tarry black stools was noted in his cases. The green color Dr. Buchanan says he does not understand. He has read of it in cases of yellow fever.

Vomiting of Pregnancy.—Bacon (*Am. Jour. Med. Sci.*) writes at length on the subject of vomiting in pregnancy. For hyperemesis gravidarum, except the extreme cases, he insists upon absolute rest in the horizontal position, the position being constantly and persistently maintained, it often being advisable even to have the head lower than the feet; all nourishment is given without raising the head, and during vomiting the patient is turned on her side, on no account allowing her to be raised. Absolute rest equalizes the circulation and insures against unnecessary loss of strength and vital energy. In addition, in the severest cases he recommends the subcutaneous injection of salt solution. He injects hypodermatically one quart of normal salt solution twice a day, washes out the stomach every morning, and gives rectal injections of salt solution three or four times a day.

Examinations are made to correct, if possible, any pathological conditions existing in the pelvis. Applications to the cervix, as nitrate of silver, are used chiefly for the moral effect, while sinapisms, the hotwater bag or ice bag may be applied to the epigastrium. Nerve sedatives are to be used with great caution, while the effects of morphia he considers generally bad.

He believes there is no place for abortion in the treatment of hyperemesis gravidarum; that it is efficient only when unnecessary, and that those who most strongly recommend the induction of abortion warn against its employment in the last stages. The waste of energy from the shock and loss of blood is often enough to hasten the death of the patient.

The summary of his recommendations for treatment is :

(1) The abnormal irritability of the nervous system, including the vomiting centre, is to be allayed by keeping the patient in the horizontal

position, by attention to the skin, bowels and kidneys, using rectal and, if necessary, hypodermatic injections of salt solution.

(2) The hysterical condition which is so commonly found present should be controlled by strengthening the will and influencing the dominant ideas of the patient.

(3) All sources of peripheral irritation should be discovered and treated.

(4) In extreme cases subcutaneous saline injections serve the threefold purpose of (a) dilating the blood and increasing vascular tension; (b) eliminating toxins through renal and intestinal emunctories; (c) furnishing two most important kinds of food.

(5) Induction of abortion is never indicated. At a stage when it is safe and efficient it is not necessary, and in extreme cases it adds greatly to the danger, rarely stops vomiting, and can be substituted by the artificial serum.

Surgical Hints.—(1) Whenever you suspect the presence of severe internal injuries, never allow the patient to get up and go about very soon. It is always of great importance to secure as long a period of rest and quiet as possible.

(2) In bony ankylosis there is no pain in voluntary efforts of motion; in fibrous ankylosis there is. In the first, if the physician tries passive motion, the pain is only where his fingers compress the part; in the latter there is pain all over the joint.

(3) In any of the forms of chronic superficial inflammation of the tongue it is unwise to use caustics. These agents commonly increase the irritation, such cases showing marked tendencies toward malignant development, and must always be carefully watched.

(4) Never treat a severe burn on the flexor part of the joint without applying an appropriate splint to prevent as much as possible the occurrence of contraction. The need of skin grafting is especially great in all burns where the result of contraction would be deformity or disability.

(5) In dislocations at the shoulder-joint, a rapid test consists in applying a straight ruler to the acromion process of the scapula and the external condyle of the humerus. If it touches both joints at the same time there is dislocation, for normally the deltoid prominence prevents this.

(6) In young people complaining of pains and swelling in the neighborhood of a joint, especially about the long bones, examine very carefully to see whether the trouble is in the joint. If it affects the bone itself, the chances are in favor of malignant rather than arthritic trouble. If malignant the development is usually rapid. There are usually glandular enlargements. The tumor is uneven in density, the superficial veins increase fast, and the pain is more or less constant and of a shooting nature.

(7) To remove blood from the hands use soap only after washing in plain water.

(8) Sweeping and dusting should not be done just before an operation. Cover possible dust collections with wet sheets.

(9) In amputations loose muscles retract more than those attached to bone. Hence sever the loose muscles first, so that the ends may be of equal length.

(10) If the wound is clean leave it alone; the best surgeons apply but one dressing.

(11) Wash out the nasal passages before giving ether to subjects of catarrh.

(12) Scalp wounds, if large, should be stitched, but stitches should be removed early.

(13) In felon find out if the bone is attacked. Amputation of the terminal phalanx is best delayed until the septic process is overcome.

(14) In frostbite do not amputate early. Use thorough asepsis, and maintain the patient's strength.—*International Journal of Surgery*.

Circumcision—Its Floral and Physical Necessities and Advantages.—Dr. A. W. Taylor, of Beverly, read this essay. He said that the operation of circumcision was thirty-seven hundred and ninety-seven years old, the first operation having been done on a person 99 years old, and the next on his son of 19. The operation had evidently had its foundation in sound physiological reasons. There could be no doubt that the original divine decree had been intended as a sanitary precaution. Circumcision was the oldest of all surgical operations. Not all cases of congenital or inflammatory adhesions of the prepuce to the glans were continued to adult life, but circumcision and the removal of these adhesions contributed largely to the comfort of the individual. It was not necessary that the constriction should be complete or the prepuce narrow and long to give rise to severe nervous symptoms. The organ was exceedingly sensitive to mental or local irritation. Phimosis was responsible for a long series of formidable symptoms. The speaker was of the opinion that not infrequently marital unhappiness would be better relieved by circumcising the husband than by suing for divorce, and that a man, before marrying, should be examined with this operation in view should it be indicated.—*Medical Review*.

The Acme of Sexual Ignorance.—The *Quarterly Medical Journal* for July, quoting from the *Review of Reviews*, says that Mr. J. G. Frazer contributes the first part of an article on "The Origin of Totemism to the *Fortnightly Review* for April. It is based chiefly upon the book by Mr. Spencer and Mr. Gillen on "The Native Tribes of Central Australia," which has just been published by Messrs. Macmillan. Mr. Frazer says that the book contains a full description of the most extraordinary set of customs and beliefs ever put on record. The natives, whose customs are described by Messrs. Spencer and Gillen, are so devoid of what may be called ordinary common sense that, although they suffer severely from frost at night, they have never yet learned to use the furs of the animals which they kill, as clothing. They huddle naked around little fires, into which they frequently roll when sleeping, and burn themselves. Even this, however, is a less extraordinary illustration of their difference from the rest of mankind than is to be found in their theory as to the propagation of the species. Mr. Frazer says: "They have no notion that mankind is propagated by the union of the sexes—indeed, when the idea is suggested to them they steadfastly reject it. Their own theory to account for the continuation of the species is sufficiently remarkable. They suppose that in certain far-off times, to which they give the name of 'Alcheringa,' their ancestors roamed about in bands, each band consisting of members of the same totem group. When they died their spirits went into the ground, and formed, as it were, spiritual store-houses, the external mark of which is some natural feature, generally a stone or tree. Such spots are scattered all over the country, and the ancestral spirits who haunt them are ever waiting for a favorable opportunity to be born again into the world. When one of them sees his chance he pounces out on a passing girl or woman and enters into her. Then she conceives and in due time gives birth to a child, who is firmly believed to be a reincarnation of

the spirit that darted into the mother from the rock or tree. It matters not whether a woman be young or old, a matron or a maid, all are alike liable to be thus impregnated by the spirit—although it has been shrewdly observed by the natives that the spirits on the whole exhibit a preference for such women as are young and fat. Accordingly when a plump damsel, who shrinks from the burden of maternity, is obliged to pass one of the spots where the disembodied spirits are supposed to lurk, she disguises herself as a withered old hag and hobbles past, bent up double, leaning on a stick, wrinkling her smooth young face, and mumbling in a cracked, wheezy voice, 'Don't come to me, I am an old woman.' Thus, in the opinion of these savages, every conception is what we are wont to call an immaculate conception, being brought about by the entrance into the mother of a spirit apart from any contact with the other sex. Students of folklore have long been familiar with notions of this sort occurring in the stories of the birth of miraculous personages; but this is the first case on record of a tribe who believe in immaculate conception as the sole cause of the birth of every human being who comes into the world. A people so ignorant of the most elementary of natural processes may well rank at the very bottom of the savage scale.—*New York Medical Journal*.

Acetanilid Poisoning.—DR. THOMSON S. WESTCOTT (*Pediatrics*) reports a case of Acetanilid Poisoning in a female infant, 4 months of age, the child of a brother practitioner. She was a fat, well-developed baby, nursed entirely upon the breast; and during the hot weather of last summer she perspired freely and became chafed in the folds of the groins and the creases of the thighs, a mild eczematous condition existing in a small portion of the areas affected. For this the father had ordered a dusting powder of pure acetanilid. Three hours after the drug was applied the whole surface of the body showed a peculiar grayish pallor, and the lips were bluish, though the surface temperature was not thought by the mother to be lower than usual. The cyanosis increased for an hour and a half, the face became pinched and drawn in appearance, and the baby was in a profound slumber, from which she could not easily be aroused. When the father first saw her, four or five hours after signs of poison were first noticed, the cardiac action and respiration were not appreciably disturbed. The remains of the powder were not removed till this time. Recovery gradually ensued without any more active treatment than small doses of whiskey once or twice repeated. In this case the actual amount of surface capable of directly absorbing the drug was very small, and in no way comparable to the area of surface exposed in other cases so far recorded. The report concluded by deprecating the free use of so dangerous a drug under any conditions in young children, and considered that the existence of any break in the surface should demand the greatest caution in its use, if indeed this should not be judged a positive contraindication.

Experience With Acetanilid.—Dr. Broadnax, in *The Med. Summary*, after giving a case in which the effects of belladonna were not obtained until after the administration of two grains of acetanilid, adds:

"Recently I have been using one to two grains acetanilid and $\frac{1}{8}$ grain morphine with marked improvement in the effect of the morphine in those who cannot use it by itself.

A writer, a professor in an Eastern college, remarks, with some astonishment, the good effects of quinine where half the usual dose of that drug is used with two or three grains of acetanilid. There would have been very little need for astonishment had he half studied up the peculiar effect of the acetanilid, viz: relaxation of the capillary veins and arteries, allowing the

blood, which their contraction had squeezed out, to return to the surface. In fact, he could have had the same effect with acetanilid and 1-67 grain of strychnine, or the same of arsenic."

Tropon—A Maximum Nutrition at a Minimum Cost.—The unheralded advent of a dietetic debutant in the domain of medicine may not be attended with the flourish of trumpets and acclaim that some sensational discovery in serum-therapy secures, yet it cannot be denied that it is to the forced feeding of patients in phthisis that actual progress counts in combating this disease. Any substance or combination of food-elements which would furnish concentrated and complete nourishment in malnutrition should merit the consideration of every thoughtful physician.

Tropon, containing 90 per cent. pure albumen in the ultimate form of its absorption, must be reckoned as an important discovery and certainly a valuable contribution to food chemistry and food digestibility. When nutrition is deficient on account of exhaustion from disease or overwork, tropon supplies ample nutritive material and it can be readily adjusted to a mixed dietary. It does not impair normal digestive vigor nor induce the aversion and monotony arising from the exclusive use of other food-products. Tropon is capable of insuring prolonged and sustained nutrition, *per se*. It is a perfect and complete substitute for albumen in ordinary food. The clinical experiments of Prof. Finkler and his pupils have shown that it is best used as an adjuvant with other food. Tropon is palatable, well borne, and does not cause intestinal disturbances. On account of these many striking advantages, also its small bulk and low price, tropon should achieve the same measure of success here as in Europe, and thereby justify the reputation of its discoverer, Prof. Finkler, of the University of Bonn, Germany.

Doctors Strauss and Plaut, of Berlin, Klein and Schmeliński, of Hamburg, and Dr. Rumpf, of Gorbersdorf, give unstinted praise to tropon as an unrivalled food value in the various processes of digestion, absorption and assimilation.

All of the above authorities report a rapid increase in weight from its use. Dr. S. A. Knopf, of New York, in his recent work on Pulmonary Tuberculosis* says on page 241: "Of the many food substances which have been recommended recently as especially valuable in the dietetic treatment of tuberculosis, I have used most extensively and with most satisfactory results the new product, Tropon."

New Creosote Salt, Eosolate of Calcium.—Various derivatives of creosote have appeared since Prof. Summerboldt recorded his experience with creosote in tuberculosis, but none was found which retained the antiseptic properties of the creosote without the objectionable gastric disturbances.

Dr. Wendt has succeeded in producing the sulpho-acid-salts of the aliphatic esters of creosote and guaiacol, namely the eosolate of calcium, (calcium eosolicum), the eosolate of silver (argentum eosolicum), and the eosolate of quinine (chininum eosolicum).

Eosolate of calcium is an odorless and tasteless powder, which is free from the corrosive effects of the creosote, albeit retaining all the antiseptic and anti-tubercular properties of the creosote. It can be taken even by young children without the least objection.

The dose is from 5 to 15 grains three times a day. It is thought best to begin with the smaller dose in powder or capsule form, and gradually increase to the maximum of 60 grains per day for adults.

*Pulmonary Tuberculosis; its Modern Prophylaxis and the Treatment in Special Institutions and at Home." (P. Blakiston's Son & Co., Philadelphia, 1899.)

Dr. Huber's Discovery.—The following report from Ann Arbor contains statements that are important, if true:

New honor had just been brought to the medical faculty of the University of Michigan by the results of the research of Dr. Karl Huber. For a long time it has been an undeniable physiological fact that the nerves control the blood-vessels of the body, but the best physiologists have always questioned the existence of any nerves controlling the blood-vessels of the brain. It remained for Dr. Huber to make this important discovery, which will cause a number of pages in the standard works on anatomy and physiology to be torn out. At present, the methods of treating the cases which this discovery will affect are empirical, but the fact which Dr. Huber has given to the world will put medical knowledge and treatment of such complaints as apoplexy, epilepsy and various forms of headache, on a logical and scientific basis. Thus it is made possible for intelligent experiments to be made with a view of improving the present methods of treatment of the above diseases. Dr. Huber has prepared an article on his discovery which will be published this month.—*Med. Fortnightly*.

Pepsin in Burns of the Third Degree.—O. Waterman (*Therapeutische Monatshefte*, xiii, p. 30; *Merck's Archives*, March), of New York, gives the history of a case of a machinist who received a burn of the third degree caused by some boiling pea soup which was spilled over his left forearm. This was at first treated with carron oil and next day with iodoform gauze. At the end of three or four days the wound was covered with a dirty whitish purulent secretion with raised edge. Some places were curetted. Pepsin was then sprinkled over the arm and the whole surrounded by a gauze bandage. At the end of four days this was removed and the wound surface was studded over with healthy granulations, and here and there new patches of epidermis had commenced in this short time to develop. The wound was then again cleaned with antiseptics and another sprinkling of pepsin applied. At the end of about twelve or thirteen days the whole arm was healed and there was no scar tissue. It is also to be noted that the patient was anæmic and was suffering from tabes dorsalis.—*N. Y. Med. Jour.*

Carron-Oil Injections in Gonorrhœa.—W. E. Wamsley (*Brooklyn Medical Journal*, xiii, p. 182; *Merck's Archives*, March), of Brooklyn, at the suggestion of a patient, has tried linimentum calcis as an injection in gonorrhœa and gleet with unusually good results. The patient had used it for a burn and it occurred to him that it might be good in gonorrhœa. The doctor at first paid no attention to the suggestion, but later gave it a trial. He has since used it in twenty-seven cases of acute specific urethritis after a three-days' treatment with the compound copaiba mixture of the *National Formulary*, using it four times a day, and in every case a cure was effected in three or four days. In nine cases of gleet a complete cure was accomplished in from seven to nine days with the carron-oil injections only. The author warns against the danger of this emulsion becoming rancid if kept long, and advises that it be used only when freshly prepared.

Therapeutic Hints.

For Facial Pains From Carious Teeth.—Dr. Leo Greenbaum (*International Dental Journal*, May) recommends:

R Acetanilid..... 8 grains;
Phenacetine, } of each..... 15 "
Citrate of caffeine, }

M. To make eight powders. One to be taken every two hours.

Ointment for Burns.—By Dr. J. S. Brown:

R Boric acid..... 3ij
Tannic acid..... 3ij
Vaseline..... 3ij

Warm the mixture so as to apply it with a soft brush or sterilized feather.

The above ointment excludes the air; it is non-irritating, astringent and antiseptic, and keeps the parts soft and pliable. It also prevents the formation of scabs and resulting raw surface after their detachment.—*Rich. Jour. Pract.*

Taste of Potassium Iodid Disguised.—Dr. F. E. Ferrea of San Francisco, Cal., writes: "It gives me pleasure to forward you a formula for the administration of potassium iodid. I have given such a mixture to many of my medical friends who are more than pleased with it. One teaspoonful readily disguises the taste of ten grains of the iodid:

R Saccharin.....	3 iiii	11	70
Fl. ext. orange peel..	3 ii	7	80
Fl. ext. yerba santa..	3 ii	7	80
Fl. ext. ginger.....	3 iv	120	40
Aqua, ad.....	Oiv	1920	

Mix. Add 3 i (31.1 gm.) $MgCO_3$; shake; let it stand for twenty-four hours, filter. Color red with 3 i (31.1 gm.) fl. ext. cudbear, if desired.—*Jour. A. M. A.*

Hay Asthma.—The asthma of hay-fever is often intense and demands measures for its relief apart from what may be done for the constitutional condition. A combination which has served this purpose most efficiently in a large number of cases is the following, which was originally advised by Mays:

R Phenacetin.....	gr. lxiv	4	16
Quin sulph	gr. xxii	1	43
Ammonium chlorid...	gr. xc	5	85
Pulv Capsicum.....	gr. iv		26
Strychnin sulph	gr. i		065

Make in 32 capsules and give one as needed.

The phenacetin here relieves the neurotic portion of the attack which is often very prominent. The quinin is antiperiodic. The ammonium chlorid is strongly expectorant and markedly relieves the congestion of the mucous membranes. The capsicum neutralizes the depressant effect on the stomach of the phenacetin, while the strychnin of course is the strongest general tonic with very powerful action upon the respiratory system.

Eneuresis.—Dr. M. G. Price (*Louisville Jour. Surg. and Med.*) claims to have had much success with this rebellious trouble, and gives below some of the remedies used by him.

R Belladonna tr..... gtt. v
Ergot fl. ext..... gtt. x
Nux Vom. tr..... gtt. v

M Sig: Repeat four times a day.

Sometimes, and the indications are not well understood, we will meet

success with: R potass. brom. gr. v., benzoic acid gr. v., to a child of two years, decreasing the dose, and afterward increasing, if necessary.

In adults, with pale, acid, and abundant urine, frequently voided, this condition is sometimes easily controlled by ten drops of nitric acid, diluted with water, before meals.

Relief has been obtained from strychnia sulph. grs. $\frac{1}{40}$, tr. cantharis gtt. i, three times a day.

Thoroughly cleanse the bowels with calomel gr. $\frac{1}{4}$, santonin gr. $\frac{1}{2}$, in tablets, giving one every hour until purgation, then give rhus aromatica, atropine, and ergotin, with the hope of success.

Occasionally it may be necessary to substitute duboisine for atropine, given until dryness of the throat. Best administered in one dose at bedtime.

Acid urine of small quantity, relaxed sphincter, and irritable mucous membrane; it would seem that

R Potass acetate gr. 15
Potass. Brom gr. 15
Atrophia sulphate gr. $\frac{1}{16}$

at one dose with considerable water t. i. d., ought to have a correcting influence.

Diarrhoea.—In view of the prevalence of diarrheal affections at this time of the year, the following formula will prove of interest. Dr. G. Joachim (*Archives of Pediatrics*, July, 1899) recommends:

Tanopine, 5 to 7 grains.
Calomel, 1-12 grain.

To be taken in one dose, 3 to 4 powders daily.

This medication proved of great value in 51 cases of acute intestinal or gastro-intestinal catarrhs.

Dr. G. C. H. Meyer (*N. Y. Medical Journal*) advises the following mixture in cases of dysenteric diarrhea in children:

Castor oil, 8 to 10 minims.
Powdered gum arabic, enough to make an emulsion.
Tannopine, 4 grains.
Camphorated tincture of opium, 10 minims.
Peppermint water, enough to make 1 drachm.

Sig. This amount to be taken every two hours

The author also speaks very favorably of a mixture of bismuth, tannopine and Dover's powder for the treatment of chronic forms of diarrhea in adults where the stools are fluid and more frequent than natural.

GREENVILLE, S. C., April 15, 1899.

Messrs. Finger & Anthony, Salisbury, N. C.

GENTLEMEN:—The Surgical Instruments sent you for replating have been received. They are as good as new, the work was beautifully done, and I can safely recommend your work to the profession.

Respectfully,

JOHN H. MAXWELL, M. D.

Greenville, S. C.

320 Highland Avenue.

SANMETTO IN ENURESIS NOCTURNA.—While visiting my nephew in Illinois last Christmas he told me his little girl, six years of age, had always "wet the bed" at night, and asked me, "what shall I do for it?" I procured three ounces of Sanmetto, all the druggist had at the time; the second night she missed, and has had but three nightly emissions in two weeks. He wrote me last week, "we consider her cured, but shall keep an original bottle on hand and use if necessary." I have uniformly good results from prescribing Sanmetto in kidney and bladder complaints.

T. T. HUBBARD, M. D.

Saginaw, Mich.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, AUGUST 20, 1899.

No. 4

Original Communications.

Synopsis of Annual Essay, North Carolina Medical Society, 1899.*

BY CHARLES L. MINOR, M. D., Asheville, N. C.

IT is with humiliation that I come before you to-night, ladies and gentlemen, not, as I had hoped, to speak to you on the evolution and the future of our calling, but to make apologies for my inability to fulfill the honorable task you have laid upon me.

Ten days of severe sickness, from which I am but just recovering, have upset all my plans and left me to present myself with nothing but a pile of unfinished manuscript and a guilty conscience.

It is wise to stop sometimes in the rush of modern life and, turning, to search the past for the lessons it bears for those who faithfully study it. We are too apt to suppose that this wonderful century holds all of human knowledge, and I thought it might be instructive to show how much of what we often think is modern is but a resuscitation of the wisdom of the past. I had hoped to trace our calling from those prehistoric times when it took its rise from the God-given sentiment of sympathy for suffering; when primitive man, turning from the chase or from his ceaseless struggle with the powers of nature, stooped to succor some fallen comrade, or to bind up his wounds.

*The above synopsis was prepared to be delivered at the recent Annual Meeting of the Society at Asheville at the Wednesday night session, which was scheduled to begin at 8 p. m.

I was at the Battery Park Hotel on time and prepared to read the essay, and waited there till nearly nine, being then obliged to go to my house where I had to receive guests. The session, I believe, was called to order at 9:30, when it was impossible for me to be present, and I have felt that some explanation was proper from me, as I did not wish to be placed in the false situation of treating lightly the honor the Society had done me in electing me its essayist. Hence this note.

Owing to my fault the Secretary did not get the essay for publication in the transactions, I not thinking he would get them out as soon as he did; and when I was surprised by their receipt I felt that in justice to myself I should publish what little I had been able to write, in the State Journal. With very slight changes the manuscript is that which I had ready that night for delivery.

CHAS. L. MINOR.

Asheville, Aug. 10th, 1899.

I had hoped to show it to you, gradually taking on definite shape through long and weary centuries, handed by word of mouth, at first from man to man and then from race to race, clarifying as it went till in the hands of the Egyptians and the Hindoos it became a definite body of established practice, till at last it felt, as did so many other sciences and arts, the revivifying breath of that wonderful Greek intellect which, Midas like, turned all it touched to gold, and under its influence bloomed into the full perfection of the Hippocratic school.

I had hoped to carry you further and show the intense influence of Greek philosophy and Greek methods of thinking on its development and to show that the Greek of the age of Pericles had a system of practice that could compare most favorably in many details with that of the first quarter of this century.

From Greece I had planned to turn to Rome and to point to the effects of the practical Roman mind on Greek medicine; to dwell on Celsus and Galen and Aræteus, whose works are today worth reading, and who no less honored the profession they adorned in those by-gone days than have, in this century, Lister and Pasteur, Jenner and Virchow.

Swallowed up finally, as was all civilization, by the devouring wave of barbarism and darkness that swept like a blight over the fair plains of Italy, the efforts and struggles towards the truth of five thousand years were buried under an avalanche of ignorance and brutality.

Egyptian skill and cunning, Greek culture and philosophy, Roman practical sense and judgment, were lost to man and Truth seemed dead.

But, gentlemen, *Truth cannot die!* Lost it may be, buried it may be under a mountain of ignorance and vice, but it yet will find the light.

Just as Greek philosophy was kept from utter loss by the monasteries, so our profession was saved by the Arabs; studied by them in the translations of the old Greek and Roman masters, it was brought back to Europe when she began to emerge from the long darkness that followed the fall of the Eastern Empire.

And now, from century to century, by slow and painful accretions, the body of medical truth grew, hampered and hindered in a way we can scarcely appreciate by the superstition and slavish worship of authority of an age when a Galileo only escaped the stake by denying his convictions, it yet advanced; however narrow the age, Truth has never found a lack of worshippers who would seek and serve her at any price, men who, when to dissect the human body was a criminal offense (if our legislators in North Carolina continue it looks as though it may become so again), dared to take their lives in their hands and for her sake study anatomy on the cadaver like the great Vasalius; men who, when an all powerful church thundered against them and damned them with her anathema, yet dared to persevere.

Truth must and will grow; like a seed lodged in the crevice of some huge boulder, it grows and grows. The rock may be huge, the seed pitifully

small; but bearing in itself the germ of life, that seed must grow and expand and sooner or later the rock of ignorance and prejudice is rent apart.

Against such odds as these it was that our profession grew, till, ridding itself slowly of the fallacies and superstitions that in that age attached themselves to it, it at last, in the middle of the last century, began to emerge into the light of Freedom and Truth.

How many men, think you, have suffered torture and death, mental or physical, for every truth that has been discovered? How much suffering have her disciples born in their struggle upward, a torture and suffering the benefit of which every human being of to-day unconsciously participates in?

We have come onward and upward so far that when to-day we see the greatness of the advance we are tempted to think that the goal is won, that all truth is ours, that we have reached in this wonderful 19th century the maximum of possible medical attainment; forgetting both those who shall come after us and surpass us by building on our work, and those who have preceded us and by their sufferings and faithful efforts made possible the achievements of to-day.

In Surgery, in Bacteriology, in Diagnosis, in Chemistry and, indeed in every branch, the advances are such as our forefathers dared not dream of; we *do* what they *dreamed*; but gentlemen, had they not dreamed could we have done?

Let us not forget that the bacteriologist who to-day differentiates germs with exquisite nicety and brews subtle antitoxins to give, not to take life, is but a disciple of old Anthony Loewenhoeck, of Amsterdam, who with his primitive microscope laid two centuries ago the foundations of the science his follower to-day adorns; that the accomplished laparotomist who with every means at his disposal that science can suggest and philanthropy supply, operates with skilled assistants on cases that our fathers dared not touch, is but a disciple of old Ephraim McDowell in the backwoods of Kentucky, with only himself and his good judgment to fall back on, and a human life dependent on his skill.

We stand at the end of a great century, and looking back on all that has been accomplished, our hearts swell with pardonable pride that we have been allowed to live and act however humbly in such an age, an age so distinguished that it might with justice be called the age of Pericles of our profession.

But if the attained is great—and who will deny it?—what is it in comparison to the greater attainable which lies before and tempts us to pursuit?

Think of the unsolved problems of Physiology, of the vast realm of Neuro-Pathology yet scarce touched, of the chemistry of the organic compounds yet so imperfectly known and of fifty other branches where our knowledge is as zero, and we can only cry Ignorabimus.

That sooner or later these problems will be solved, who that studies the history of our glorious profession can doubt, for does it not teach us that even in its darkest hours Medicine has never lacked sons whose burning love of

knowledge has urged them to a ceaseless search for Truth? It may not be ours to win the deathless laurels that come to the great discoverer, not ours to carve our names high among the leaders of the world's medicine, a century produces but few so blessed; enough, if on our daily rounds it is ours to slowly and accurately gather those facts on which the great advances of our profession are built, and without which, however great the individual genius of isolated workers, they must cease; enough, if by careful observation and systematic record we help to add to the sum of that accumulated knowledge from which shall be born the Truth.

The history of medicine, on which I had wanted to talk to-night, teaches plainly that the advance of our profession does not depend on great discoveries alone, that the solitary, unknown worker, gathering facts, is as important, yes, *more* important, than the greatest discoverer the world has ever known.

Let us, then, take pattern after the great father of our craft, the immortal Hippocrates, who thought no observation too slight for faithful record, no fact too trivial for honest study, and let us ever keep in our minds the wise old saying:

"He alone who observes can diagnose; he only who can diagnose can cure."

65 French Broad Ave.

A Case of Abdominal Pregnancy of Nearly Two Years' Duration.

By M. BOLTON, M. D., Rich Square, N. C.

II WAS sent for on the morning of July 14th, 1896, to see M. J., a negro woman, aged about twenty-two years, mother of one child, born at full term of normal labor. She stated she had a chill the previous afternoon, and had high fever and labor pains all night. She had slight fever at the time of my visit, but was better of the pains.

Her last menstrual period was about the first of the preceding March, and she was apparently four or five months pregnant.

She was a healthy looking woman of average size, and I saw nothing of special interest in her case. She said her symptoms up to that time had been the same she experienced in the early months of her first pregnancy, two or three years before. I considered it a case of malaria with threatened abortion and gave her a laxative, a few five-grain doses of quinine and bromide of potassium, and she was well in a few days, except occasional pains and tenderness in the region of the womb.

I did not see her again until expiration of the period of gestation, though her husband came to me several times to get medicine for the relief of "the same pains." Two or three weeks after her expected labor she came to my office one day, as I was preparing to go to an urgent case, and I did not examine her. She said she had not felt the child move in fifteen or eighteen days and that she had reduced somewhat in size and her "sickness"

had come on. As she seemed to be in perfect health, I did not give her any medicine, but directed her to go home and take proper care of herself, and if everything did not come on all right in a few days to notify me and I would give her such treatment as might be indicated.

She and her husband belonged to that *large* class of indifferent, non-paying, yet not charity patients that afflict country practitioners so much. She went off and never returned and did not send me any message. I became interested in her, however, and made inquiry about her, and learned that she had fallen in the hands of a "trick doctor," as they usually do when anything at all uncommon occurs.

He told her she was not in "the family way," but had terrapins, lizards and all manner of things in her. I did not see her again until late in the summer of '97, when I met her on the road and asked her a few questions.

She said she had been well and at work all the while. She had shrunk considerably and said the "lump" in her had gotten lower and had remained about the same size several months. She had menstruated regularly, and at times profusely, since her last visit to my office, but had passed nothing else from her uterus.

February 10th, 1898, her father came to my office; said she had been very sick three or four days and was about to die, and wanted to know if I would go out and cut her open after she died and see what was really in her. I told him I was really anxious to know the nature of the case, and would be glad to make the post mortem examination.

On the morning of February 12th I was notified that she was dead. I took a friend with me and went out to make the examination. On exposing her person I discovered a rather profuse and exceedingly offensive discharge from the vagina, which, I was informed, had existed five or six days, and that the fatal attack dated from the commencement of this discharge. On cutting through the abdominal wall I came down on the most offensive mass of putrefaction it has ever been my lot to witness. There was the denuded skeleton, hair and pus, but no trace of any of the soft parts. The walls of the sac were extremely fragile and gave way under the slightest manipulation. I sponged out the pelvis with a view of finding the site of the uterine rupture, but the structures gave way so easily I did not satisfy myself on that point, but thought it was through the vaginal cul-de-sac.

These people lived on a cotton farm, and I was told that this woman picked out cotton during the seasons of '96 and '97. Her husband said she picked as much every day in the season of 1897 as he did.

To Remove the Odor of Iodoform.—Edwin Ricketts, M. D. (*Lancet-Clinic*), says: "To do away with the 'smell' of iodoform that comes to the hands of the surgeon for handling it, I find that to rub on, after use of soap and water, a teaspoonful of vinegar (found in every household) does away, promptly, with the very disagreeable odor."—*Med. Standard*.

The Doctor, The Druggist, Proprietary Medicines, Patents, Etc.

By WILBUR F. STERMAN, M. D., Winterset, Ia.

WHEN the practicing physician must compete alone and single-handed against public credulity in all forms of quackery and charlatanism and the thousand and one advertised patent medicines that are recommended and guaranteed to "Cure all ills that people have, and just a trifle more," he is using generally in his prescriptions many forms of different combinations in order to save time, pencil and paper, that are really more injurious to his future welfare than these.

Although a majority of these bear a formula, they are prepared for special profit, and are protected and sold entirely too high for such general adoption as many of them enjoy. A major per cent. of them are good combinations, but the same ingredients, written in a prescription and properly compounded by the retail pharmacist, are equally as good if not better, and the home druggist is not thereby robbed of his profit, the remedies can be sold cheaper, and your patients thereby protected and not given just cause for complaint.

Many of these proprietary preparations have directions in full printed on each bottle, and the laity soon learn to buy them direct from the retailers, and use them the same as straight-out patent medicines.

The practice of medicine, including the entire therapy thereof, should be confined by law to actual diagnosticians at the bedside, and any druggist or pharmacist who recommends and sells any patent or proprietary medicine, or personally prepared nostrum, for any ailment or disease, the physiology, pathology, etiology or symptomatology of which he knows nothing about, should be as amenable to legal punishment as any other person violating the laws of any State regulating the practice of medicine within its borders.

It is impossible, however, to enact laws to prevent the American people from being humbugged, for they are not only willing, but determined to have it persistently done, and are anxious to pay somebody a hundred prices to successfully do it, and they will rush pell mell over each other to any new fad, or "Pathy," to lavish their money on the most mythical "Ism," and the most stupendous prevaricator.

Testimonials of the clergy, senators, congressman and numerous "Ex-officio," and even of eminent (?) physicians also, are bought up with chips and whetstones and published by the thousand to aid them in repeating the song of the spider to the fly.

Osteopathy at present heads the list of systematically practiced deception, with psychopathy or some other craze soon to follow, for miraculous cures are daily reported by the adjustment of some three or four dislocated lumbar, dorsal, or cervical vertebræ, and when the limit of the axis and the atlas have been passed, the true source of the trouble and the seat of the disease is near at hand, and the treatment more difficult, on account of lack of material there to work on.

The list of these mentally unbalanced people who are constantly running after some fake to throw their money at is not confined to the poorer, nor to the ignorant classes, but embraces many who *claim* to have good sense and good judgment, but their actions do not bear them out in the claim.

Pick up a city daily paper and look at the list of thirty or forty advertisements of quack men, and quack medicines contained therein, figure up their cost and charge the sum to the curious and credulous public.

Read a few of the recommendations from weak-minded men and women and note the kind of questions propounded and the terrible symptoms given, and they will almost make you feel sick yourself, and will certainly give you a pain (in the rectum).

A man comes into town from the country and instinctively or intuitively drifts into the local drug store; he sees a physician pass the door and remarks: "There goes Doc so and so; I must go around and see him about my wife; she is down sick, and needs some medicine." The druggist questions him in regard to her case and in an offhand way remarks: "Oh, I can soon fix you out on that matter; here, take out a bottle of — and give it to her according to directions, and she'll soon be all right."

He is only afraid the man may get a prescription, and go to some other store to have it compounded.

Retail druggists are also too prone to prepare various nostrums for headache, colds, coughs, grippe, malaria, or to sell acetanilide or other depressing or dangerous agents in bulk, or powder *ad libitum*, to the general public. Now all this kind of thing should be stopped at once, and made punishable by law, and the physician thereby better protected, patronized and remunerated, and aid him in making an honest livelihood.

But the wholesale manufacturer of bottled, labeled and protected compounds is to-day the worst menace to the retail druggist, and to the general practitioner also, in so far, as so soon as his remedy is introduced and used by the profession and learned by the laity, he is rendered absolutely independent and can furnish it direct to the trade and general public, if considered expedient and more remunerative. The medical journals are all filled with advertisements of various complicated technical and complex compounds, mostly incongruous conglomerations of incompatibilities, consequently very difficult of successful substitution by the average pharmacist, and these are prescribed by the busy physician in order to save the time required to write out each ingredient separately in a prescription, and perhaps one-half of the compound is in reality superfluous and not really indicated in the treatment of the individual case, though none of the unnecessary ones may be contraindicated. These, as a rule, are costly and, therefore, dissatisfactory to the retail druggist to handle, to the physician to prescribe, and to his patients who are compelled to pay the exorbitant prices.

Unless more mutual consideration and unanimity of purpose can be established and maintained between the retail druggist and the physician, the time is near at hand when every practitioner must carry his own line of

remedies, and compound his own prescriptions, in order to protect himself against substitution, refills, proprietary remedies, nostrums, patent medicines and counter-prescribing. True, a certain percentage of these compounds and complex preparations are very good, and so long as the cost to the retail dispenser and the consumer is not exorbitantly high, their quality good and their therapeutic properties desirable and satisfactory, the foregoing remarks do not apply, but only to those, whose name is legion, where the direct profit to the manufacturer is double or quadruple what it should be, and the doctor prescribes them, the patient uses them, and the druggist handles them at a loss.

Should Nerve Stimulants be Administered to Pregnant Women.*

By S. L. PERKINS, M. D., Creston, N. C.

THE subject I have selected asks a question of vast importance, as it has to do with the proper development of millions yet unborn, but it has failed of recognition at the hands of medical writers and practitioners. Medical writers do not fail to note the fact that nervous disturbances are on the increase, but in their enumeration of causes they fail utterly to mention that which, in my judgment, is capable of great evil.

A high-strung nervous system is one of the legacies of our civilization, or rather of the stage of civilization to which we have attained, and I shall endeavor to show that if proper effort is put forth, the undue development of the nervous system at the expense of the muscular, might be held in check. The time to begin this effort is during foetal life.

All physicians are frequently called on to treat pregnant women of a very tense nervous system. Then it is that the doctor stands face to face with the grave question (and responsibility): What effect will the remedies I am about to use have upon the foetus now in process of development?

This brings us to the subject of this paper, "Should," Etc.

I assume the negative, and contend that nerve stimulants should never be used under these circumstances unless nothing else will meet the demand. I am convinced that the doctor is not justified in prescribing this class of remedies for the pregnant woman until he has exhausted all other means at his command for the relief of his patient. We are warranted in assuming that this class of drugs will produce the same physiological effect upon the foetus that they do upon the mother, though perhaps in a less degree, and their continued use at this time will have a tendency to cause an abnormal development of the foetal nervous system; a nervous development out of proportion to that of the muscular system.

(That drugs do have the same effect on the foetus as on the mother must stand as a fact until disproved by investigators.)

Those born with an abnormally developed nervous system (tense) belong to an unfortunate class who must face the stern realities of life in the great march of mankind hampered by a lack of balance between the muscular and

*Read before Ashe Co. Med. Society, June, '99.

nervous development. The indelible influence impressed upon the individual by the state and condition of the mother's mind during pregnancy is well known.

Therefore the law of nature demands that the doctor make every effort in his power to cause proportionate development of the nervous and muscular system—a condition too often absent among present-day civilized people. When the nervous system preponderates suffering is increased, pain is felt more keenly and is harder to bear, and all varieties of disturbances are at a higher tide, and the tedious train of evils that follow such conditions are but a natural result of the excessive development of nervous elements.

The medication given the mother during pregnancy, and to the child during infancy and childhood should be carefully selected, and as little as possible given. The point I want to make is, never give medicine unless it is needed, and when it must be used give as little as possible, and never give a stimulant when other remedies will do as well. By so doing we throw nothing in nature's way and allow (and aid) her to take her normal trend and restore man to a better state than that in which he now finds himself.

The dietary stimulants should also be considered, but I shall omit them in this paper.

SELECTED PAPER.

Chlorosis.

By DR. S. ASCHER, Hamburg, Germany.

[Translated.]

ALTHOUGH chlorosis in its typical form, which occurs especially in females at the time of puberty, is generally amenable to medical treatment, there are cases in which all our efforts to effect a cure are unattended with successful results. We are inclined in such cases to call to mind the explanation given by Virchow, who assumes that chlorosis frequently depends upon a congenital narrowing of the arteries; yet this explanation is of little aid to the practical physician. If we remember that the action of iron—*our panacea in chlorosis*—is yet a mooted question, and that doubt still exists as to whether iron is capable of absorption by the stomach or intestines, it is natural that we should welcome preparations which promise to give better results than those in previous use.

It is well known that in the hæmoglobin of the red corpuscles *manganese* is constantly found in connection with iron. Opinions have always been divided as to the significance of manganese in the blood, as regards the question whether manganese is really a constant constituent of hæmoglobin or an occasional one. We know that the function of the red corpuscles to take up oxygen is chiefly attributable to the presence of iron, but an active part in this direction has also been ascribed to *manganese*.

While in chloride of iron one-third of the chlorine is active, this property belongs to a still greater extent to manganese chloride, a combination of chlorine and manganese corresponding to that of chlorine and iron. Iron chloride is a much more stable combination than manganese chloride, which decomposes even at ordinary temperatures and gives off one-half of its chlorine; it is, therefore, *quantitatively more active than iron*. Manganese as a constituent of the blood exerts a *stronger polarizing effect upon the oxygen* and gives off the latter more readily than iron.

Manganese is, therefore, a more powerful oxidizing agent than iron, and absorbed into the body, will exert an energetic assimilative action.

Joh. Kugler, in 1838, was the first to recommend the *manganese* salts in scrofulosis. He made the observation that persons who handled manganese oxide in a chlorine bleachery enjoyed an immunity from diseases of the skin, bones, and glands. In 1844 Hannan found a diminution of *manganese* in scrofulosis, and to a still greater extent in anæmia and chlorosis. In chlorosis he found that the quantity of iron was sometimes chiefly diminished and sometimes that of manganese. *He therefore distinguished chlorosis from lack of iron and manganese.*

Although this schematic classification cannot be accepted, other investigators of more recent times have established a connection between chlorosis and a deficiency of the quantity of *manganese* in the hæmoglobin.

In 1852 Petrequin recommended *manganese* in combination with iron. He maintained that in all cases in which iron is indicated but proves ineffective *there is a deficiency of manganese in the blood*. Among recent authors Rühle, of Bonn, has warmly recommended the *combination of manganese with iron* in the treatment of chlorosis, and lately *manganese* has been employed with much success for amenorrhœa in young persons between the ages of eighteen and twenty years.

Notwithstanding these high commendations from various sources, *manganese* was not generally adopted in the treatment of chlorosis, and in cases when iron failed to act, resort was had to purely dietetic measures. *The reason for this was that no preparation existed in which iron was combined with manganese in a readily absorbable form*. Such a preparation, however, is Gude's Pepto-Mangan, and the results obtained from its use by myself and others are *exceedingly promising*.

Gude's Pepto-Mangan has been tried by me and a few colleagues in various diseases associated with a depreciated condition of the blood, altogether in *eighty cases*, and in the following I will give a few exact data concerning the observation thus far made by us.

In the simple chlorosis of females during the period of puberty we have employed Gude's Pepto-Mangan in about thirty cases with uniformly good results. The remedy was always well borne, digestive disturbances were never observed, the marked symptoms of headache, vertigo, palpitation of the heart, and loss of appetite were improved within a few weeks. The bodily weight increased by one half kilogramme (about one pound). Among the histories of cases at hand the following appear especially noteworthy.

Miss Sched, aged 22, suffered from œdema of the legs, general weakness, marked anæmia; menses absent for several years. Prescribed rest, vigorous diet, massage, and Gude's Pepto-Mangan three times daily. After six weeks' treatment œdema disappeared, menses returned, patient felt better, had better color. Four weeks later menses became abundant, although the Pepto-Mangan was no longer employed.

Miss R., aged 28, seamstress, marked anæmia, nervous dyspepsia, fluor albus. Besides massage, rest, etc., Gude's Pepto-Mangan, one teaspoonful thrice daily. After three weeks, fluor disappeared, menstruation more abundant, patient's condition perceptibly improved. The disagreeable backache had ceased, appetite and condition of bowels normal.

Miss Clara F., aged 25, weight 52.5 kilogrammes (about 110 pounds); great disturbance of nutrition and anæmia; had suffered for five years from amenorrhœa, nervous dyspepsia, general neurasthenia and nervousness; complexion sallow owing to constipation. Gude's Pepto-Mangan administered (altogether 1,100 grammes, 36 to 37 ounces). Result very favorable: weight increased one-half kilogramme (about one pound) every week, appearance excellent, general condition much improved; constipation relieved by extract frangul fluid. During the eighth week menses returned; headache and stomach troubles have disappeared; patient has great hopes of perfect restoration to health.

This preparation also proved very serviceable in cases of anæmia associated with more or less marked scrofulosis. The abscesses of the skin healed, eczema of undoubted scrofulous character disappeared. The following case is characteristic:

Margaret G, aged 12, a weak, anæmic, and scrofulous girl, had suffered repeatedly from tonsillitis, coryza, anorexia, glandular swellings, and had a pale and sickly appearance. Prescribed for a period of six months three baths containing Kreuznach mother-lye thrice weekly, and Gude's Pepto-Mangan one teaspoonful thrice daily. In all 1,000 grammes (two pounds) of the liquor were used. The girl now looks well, healthy complexion, red cheeks and lips, appetite good, swelling of glands has almost entirely disappeared.

I have further employed Gude's Pepto-Mangan in that form of anæmia, which is found in young women as a complication of uterine trouble or as consequence of profuse loss of blood from repeated abortions or childbirths. The effect was always uniformly good. The patients, who belonged for the most part to the working class, after three to four weeks' use of the Pepto-Mangan, were able to resume work (although their nutrition could only be slightly improved), and were able to accomplish as much as formerly.

It is well known that during the course of chronic malaria marked anæmia develops, which is extremely obstinate to treatment and frequently defeats all efforts to effect a cure. Even after the attacks of fever have subsided the anæmia quite often persists for a long time, and the patient becomes greatly reduced in health.

In this condition, where, as I have said, other preparations of iron frequently leave us in the lurch, Gude's Pepto-Mangan has rendered us good service. We have had occasion to employ this remedy sixteen times in anæmia following malaria, and report the following two cases by way of illustration:

Margaret Sch., aged 26, unmarried, scrofulous tumors of the neck, anæmia following malaria, gastric catarrh; bodily weight 58 kilogrammes (about 122 pounds). Duration of treatment two months; 800 grammes of Pepto-Mangan used with material and continuous improvement. Vomiting and headache have disappeared, appetite good, increase of weight two kilogrammes (four pounds).

Bertha Pr., aged 10 years, 20.5 kilogrammes (about 43 pounds), marked anæmia after malaria and scarlatina, diphtheria. Five hundred grammes (one pint) of Gude's Pepto-Mangan administered in six weeks. Considerable improvement of the general condition. The patient had so much improved that treatment was discontinued, thinking it no longer necessary. Increase of weight 1.5 kilogrammes (three pounds).

That Gude's Pepto-Mangan is also an excellent remedy for children is demonstrated by the above observation, as well as the following one:

Annie and Willie D., twins, $2\frac{3}{4}$ years old. Rickety, pale and unhealthy color of face, appetite poor. Gude's Pepto-Mangan in wine, one teaspoonful thrice daily, altogether 300 grammes (ten ounces) used. The children take it gladly and it is well borne. Appetite has improved.

Finally, it may be mentioned that I have tried the Pepto-Mangan in several cases of pulmonary tuberculosis. Of course, the effect here was only relative, yet frequently we were able to improve the appetite and effect a slight gain in weight.

In the foregoing remarks I have somewhat in detail given my experience with Gude's Pepto-Mangan, and I have done this because I am convinced that it is worth while to institute further trials with this preparation. The observations thus far made were very encouraging. I will not attempt to define what part manganese plays in the new preparation. At any rate, it appears that, compared with other ferruginous preparations, Gude's Pepto-Mangan has a better and more certain effect, and is characterized by the fact that it does not produce disturbance of the digestive tract. It would be interesting to determine by experimentation that under the use of this remedy the quantity of manganese in the blood is actually increased. Such an experiment would definitely prove that Hannan's theory of chlorosis based upon deficiency of iron and manganese in the blood is perfectly correct.—
From the Allgemeine Medizin, Central Zeitung.

Operating Under Difficulties.—While several physicians of Baltimore were performing an operation on a child not long ago, an explosion of gasoline in the next room set fire to the house. The fire department turned out and put out the fire, the physicians meanwhile continuing the operation until the heat forced them to remove the patient to another room.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.
Editors and Proprietors.

W. H. WAKEFIELD, M. D.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.
J. HOWELL WAY, M. D., Waynesville, N. C.
J. ALLISON HODGES, M. D., Richmond, Va.
S. WESTRY BATTLE, M. D., Asheville, N. C.
GEO. G. THOMAS, M. D., Wilmington, N. C.

R. L. PAYNE, M. D., Norfolk, Va.
H. S. LOTT, M. D., Winston, N. C.
J. W. LONG, M. D., Salisbury, N. C.
H. A. ROYSTER, M. D., Raleigh, N. C.
ALBERT ANDERSON, M. D., Wilson, N. C.

J. F. MONROE, M. D., Davidson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

THE YELLOW FEVER OUTBREAK.

The prompt suppression of the threatened epidemic of yellow fever at Hampton, Va., is a convincing argument, if any one doubted if before, that the national Government is the proper party to handle such matters. The so-called "shot-gun quarantine" should be relegated to the past, as at best a miserable substitute for an enlightened and scientific management of epidemic diseases. Panicky municipal or State authorities often recognize a danger when there is none, and as often neglect essentials while fighting the non-essentials. Usually without proper medical facilities, and always susceptible to the clamors of a frightened populace they are incompetent to manage a matter seriously affecting not only themselves, but the country at large. The story in circulation which attributed the outbreak at Hampton to the presence there for a few days of an individual lately arrived via New York from the West Indies, and who left a short time before the disease appeared, does not seem to have been substantiated, and has called forth a protest from Health Officer Doty of the port of New York.

Dr. Doty states that, "Since May 1, every passenger arriving on vessels from Cuban ports has been held at quarantine for a period of five days from time of embarkation, unless he or she presents an immune certificate issued by a representative of the Marine-Hospital Service at the point of departure. Not one exception has been made. If the passengers arrive on a United States transport, the vessel is detained at quarantine with the passengers aboard, under the constant supervision of a member of the medical corps of the United States Army. At the expiration of five days from the time of embarkation and after a report from the surgeon in charge that all are well,

the passengers are brought to the deck and personally examined before the vessel is released. In the case of merchant vessels all passengers who do not hold immune certificates are removed to Hoffman Island and detained there under the observation of health officers until the completion of the above period, and are then only released after a careful inspection. It is believed that five days is the maximum period of the incubation of yellow fever. The disease usually appears on the second or third day. The statement occasionally made that the period of incubation of yellow fever extends beyond five days is not accepted by those who are familiar with the disease."

The quarantine station at New York is generally regarded as a highly efficient one and we are glad to know that no blame can be attached to it in the present instance.

THE FIRST DUTY OF THE AMERICAN PHYSICIAN.

The *Philadelphia Medical Journal* asks this question, and answers that his first duty is to join the American Medical Association and attend its meetings. The reasons given are thus cogently stated:

"It is hardly necessary to repeat what we have so often urged, that the Association is the gravitational centre about which must gather the unitizing tendencies and powers of the profession. It is plain to every one that our professional disunity is at present our greatest curse, and that it is the fundamental cause of our powerlessness in the face of the evils besetting us. Quackery, medical humbugs, sectarianism, the nostrum shame, and innumerable spawnings of medical delusions and fanaticisms—all these exist by our leave, and almost solely because of our disorganization. Far more than this, our awful death-rate is almost the direct product of this same lack of unity. We have the knowledge whereby the American death-rate could be reduced one-half, but we have not the power to reduce it. We have not the power because we have no professional voice, no corporate unity by which we can turn our knowledge into active prophylaxis, through the law-makers and administrative officers of the national, State and civic governments."

No one can deny the obvious fact that in this country to a very large extent the medical profession possesses no power to influence the enactment of laws, even such as pertain directly to medical matters. We have no medical body analogous, for instance, to the British Medical Society, which in England represents a united profession. Our nearest counterpart to such an organization is the American Medical Association. Our contemporary proceeds to show why this latter professional body has not realized in the past what its friends hope it may do in the future. The fact that only from five per cent. to ten per cent. of American physicians are members of the Association, and that ordinarily only about one-fifth of these are present at any of the meetings, is certainly not encouraging for a national medical organization that is to make its influence felt both on the profession and the people. There are many obstacles in the way of such a consummation, other than a certain arrogance which is said to have characterized the Association in the past. We have an abiding faith, however, that it will in time become the powerful factor for good, both to the profession and the public, and thus realize its original purposes.

Book Reviews.

Skiascopy and its practical application to the study of Refraction, by Edward Jackson, A. M., M. D., Prof. of diseases of the eye in the Philadelphia Polyclinic and College for Graduates in Medicine, surgeon to Wills Eye Hospital, member of Am. Ophth. Society. 26 illustrations. The Edwards & Docker Co., Philadelphia, Pa.

This little book was written to bring about the more general adoption of skiascopy as an essential part of the examination of ametropia. Skiascopy is an objective test, independent of the patient's intelligence or visual acuteness and, in the hands of one skilled in its application, is in many cases, if not in all, of great help in determining the refractive condition. The author is well known as an untiring and gifted worker in the field of ophthalmology, and his little book of over 100 pages is characteristic of the man; it is clear, concise and thorough and a careful study will reward one desirous of "knowing" spiascopy. The printer's and binder's work is well done.

Hay Fever, Its Successful Treatment. W. C. Hollopeter, M. D. Second Edition, \$1.00. P. Blakeston, Son & Co., Philadelphia, Pa. 1899.

This book of 150 pages contains a resume of the literature of hay fever, (144 pages) but gives the reader nothing new. In the pages devoted to treatment the author advocates "complete sterilization of the entire nasal cavity," and for that purpose advocates spraying the nose with Dobell's sol. menthol, camphor, hydrogen, per oxide, albolim, etc. He advises the practitioner "to scrub most carefully and gently every portion of the mucus membrane, being sure to reach between the turbinates, and all around and over every prominence," and after thus rendering the cavity clean to spray it with some of the above drugs in albolim or water.

We fail to see any "new treatment" in this, and we must announce that we are skeptical concerning the "complete" relief which the author claims he has proven in over 200 cases.

The book is handsomely bound in blue and gold, and the paper and printing are models of bookmaking.

The Literary Digest, August 12th, contains papers of interest on Faith-Healers and the Law, Secretary Gage and the Civil Service, Michigan Press on Alger, and Pensions for Railroad Employees, a scheme being introduced by the Pennsylvania system. Also the Photograpy of Lightning, Telegraphy in China, Electrical Treatment of Cancer, Ingersoll and the Religious Press, An International Petition to the Czar in Regard to the Harsh Treatment of Finland, Kaiser Wilhelm and the French, Our War Through Foreign Eyes, and many others.

Dixie Magazine, for August, contains a historical sketch of Frank B. Mayer, Maryland's historical painter, illustrated with seven reproductions from his paintings. "The Athens of America," as Annapolis was called in our Colonial days, by Elihu S. Riley, is an interesting, illustrated, historical ramble around that old town, and among its people when Washington was there. "Southern Potteries and Clay," by H. O. Turner, illustrated, tells what has been and is being done in pottery work, and of the existence and location of China clay ledges in the South, and should be of interest to all Southern readers. "The Eleventh Hour," by Virginia W. Cloud; "Elena's Daughter (concluded)," and "The Garden of Honor," by Geo. Kean Stiles, constitute the fiction of this interesting number.

Eye, Ear, Nose and Throat Department.

By W. H. WAKEFIELD, M. D., Charlotte, N. C.

Prevention of Hay Fever.—Many Hay Fever cases have enlarged turbinals, spurs or ridges on the septum, polyps, etc. In the treatment of the Hay Fever, the first step should be to "put the nose in good order." Surgical means should be employed to render nasal respiration possible. At this stage of the treatment and in the numerous hay fever sufferers whose nasal passages are patulous except during the hay fever season, preventive treatment will generally avert the disease and keep the patient in a condition of comfort. The nasal passages should be sterilized by means of hydrozone in 10 per cent. solution in water, gradually increasing the strength to a 25 per cent. solution. This may be applied by means of the atomizer or douche and should be used 4 to 6 times daily, beginning about two weeks before the onset of the disease is expected.

If the attack is not entirely averted, in addition to the hydrozone solution use :

R Antipyrine grs. 10
Menthol... grs. 3.
Alphosol..... 3 1½.
4 per cent. solution of Eucaine B... 3 2.

Spray the nose and post-nasal space thoroughly after using the hydrozone.

Thoroughness of application counts for much in the treatment of all nasal affections, and particularly is this the case in hay fever.

The Proper Time for Operating on Adenoids.—Max Hagedorn, *Zeitschr. für Praktische Aerzte*, Jan. 15, 1899.—This is an able paper in which the author describes some of the symptoms which follow adenoid hypertrophy and explains their mechanism. Particularly the nasal obstruction which is so often present when it cannot possibly be purely mechanical. In this case the choanæ may be obstructed at the upper part, but an opening exists below. This passage, however, is not free, for oftentimes septal spurs and ridges exist, which, together with the swollen lower turbinals, and particularly their posterior portions, tend to narrow it down. Furthermore, this is just the region where the tenacious mucus is most apt to accumulate and offer further obstruction to the passage of air.

In regard to the time for operating, Hagedorn says it is as follows :

1. If nasal respiration is obstructed.
2. If frequent attacks of angina appear.
3. If the hearing is disturbed.
4. If there are present nervous symptoms such as cough, enuresis nocturnal, headache or aprosexia.

The author has had to operate twice in nursing infants where the obstruction was so great that life itself was threatened, because the children were utterly unable to nurse and breathe at the same time. VITUM.

Adenoidian Asthma.—Lepoutre—*These de Lille*, 1898.—Adenoid vegetations produce asthma as a reflex disturbance, the origin of the reflex being the nasal obstruction which causes insufficiency of hematosis, compels the patient to make more forced and frequent respiratory efforts and precipitates a nervous paroxysm. The prognosis is good.—*Laryngoscope*.

Ear Diseases Coexistent With Adenoids of the Naso-Pharynx—An Analysis of 110 Cases.—Wm. Braislin, Brooklyn—*Phila. Med. Jour.*, February 20, 1899.—In an analytical paper the author calls attention to the intimate anatomical relationship between the pharynx and ear. He emphasizes the well established view of modern aurists upon the importance of removing the exciting factors when same exist. Ear disease in some degree will always be found accompanying the adenoid growth. Treatment of the aural condition should always be continued for some time after the removal of the growth.

Epithelioma of the Nose Treated With Caustic.—I. N. Bloom—*Int. Jour. Surg.*, Vol. xii, No. 1, January, 1899. Four weeks after the appearance of a pimple on the nose of a lady, aged fifty-three, there was a typical development of epithelioma, involving the base of the nostril, the inside of the ala, and the cartilaginous septum of the left side. There was no history or evidence of tuberculosis, and syphilis was excluded by specific treatment. The growth was curetted completely, and caustic potash applied freely and thoroughly. Patient made a good recovery. Three or four weeks after operation there was a minute spot, which was cauterized; patient is now in good condition. Diagnosis was confirmed by the microscope.—*Laryngoscope*.

Headaches, with Especial Reference to Nasal and Ocular Headaches.—A. D. McConachie, Baltimore—*Mary. Med. Journ.*, March 4, 1899.—There is no symptom of disease or functional disease which is so general as this affection.

All causes must be looked into. Each organ must be examined, and general causes eliminated, before local disease can be blamed.

Headaches of nasal origin usually begin intermittently; an acute coryza exaggerates the symptom. In a dry atmosphere the attacks are not frequent. The pain may be referred to the brow, temples, eyes or scalp. The general health of the patient suffers; inability to sleep is often present, mental vigor and memory become impaired and melancholia may follow.

Catarrh of the neighboring parts may complicate the nasal disease. Mouth-breathing causes a coated tongue, and this suggests dyspepsia to the careless observer.

Inspection of the nasal cavity assists the examiner in arriving at a proper diagnosis. Cocain is a valuable adjuvant in clearing up the cause of the headache in nasal disease.

If any disease of the nose of accessory cavities is found, same must be treated without delay. The eye not infrequently is the exciting factor in chronic forms of headache, and should not be overlooked in trying to find the cause in such conditions.—*Laryngoscope*.

A New Method of Local Anesthesia in Operations on the Tympanic Membrane.—Borrain—*Laryngoscope*.—The author has obtained good results from the following formula :

R Phenol 10 grs., menthol 5 grs., chlorhydrate of cocaine grs. 5.

Or equal parts of each may be employed. After cleansing and sterilizing the auditory canal, the anesthetizing agent is applied by means of a pledget of absorbent cotton. In the cases in which it was used there was at first a light burning sensation which was followed by complete local anesthesia in three minutes.

Medical News and Items.

Dr. Thomas S. K. Morton has been elected professor of the principles and practice of surgery in the Woman's Medical College of Pennsylvania, in succession to Dr. John B. Roberts, resigned.

The Ideal Symbol of Faith, observes an exchange, is not the traditional maiden clinging to the Rock of Ages, but the bald-headed man confidently consulting the bald-headed specialist, and looking forward with enthusiasm to a great growth.

Anti-Spitting Ordinances.—Sometime ago Asheville passed an ordinance forbidding spitting on the streets, except into spittoons placed at convenient points. Last February Charlotte "wheeled into line" and enacted a law making it a misdemeanor punishable with a \$5 fine to spit on the sidewalks, but did not prohibit the use of the gutters for that purpose.

America Wins Again.—The Austrian Government has decided in favor of The Hammond Typewriter for making out its official reports and has placed an initial order for 50 machines. The increased sale of the Hammond compels the manufacturers to double their capacity, which they are doing by building a new factory on 69th street New York.

The International Conference for the Prophylaxis of Syphilis and Venereal Diseases will meet in Brussels Sept. 4th. The United States will be represented by Prof. Isadore Dyer, M. D., of New Orleans, editor New Orleans *Med. and Surg. Journal*.

Practical Mind Healing.—A Christian Scientist, whose time was fully occupied in thinking about the unreality of diseases at \$2 per think, once treated a highly unappreciative man for a chronic nervous affection of a very painful character. After this man had depleted his purse by spending \$40 thus without any improvement, he desired to know when he should begin to get better. Then the Christian Scientist waxed wroth and said: O you of little faith! Know that you would already have been cured if you had believed me when I told you that your pain was not real. Pain and suffering do not exist; they are merely phantasms of the brain. There is no such thing as matter," continued he with such emphasis that he rattled some silver dollars in his pocket, "none whatever; the only real thing is thought. All this is too subtle for your commonplace mind, and hence I can do nothing for you; you had better go and fill your coarse, unappreciative system with drugs."

Then a vision of \$40 that had vanished, and of pain that had vanished not, came before the mind of that long suffering man, and he arose and took that Christian Scientist and he mopped the floor with him, smiting him sore upon the head and back so that, when he was through, congestion, abrasions, contusions, incipient ecchymoses and epistaxis were among the phenomena presented by his Christian countenance.

"There is no real suffering," said the unappreciative man, with scorn. "The bruises of your alleged head are entirely hypothetical; the choking I gave you was simply an idea of mine, and a devilish good idea, too; the pain which you feel is merely an intellectual phantasy, and your nose-bleed is only one of the ideal conceptions of the cerebral mass. Believe these things not to exist and they vanish. Good-day, sir." And the patient departed.—*The Medical Visitor*.

Review of Medical and Surgical Progress.

The Diagnosis of Diphtheria.—By F. Foord Caiger, M. D., M. R. C. P., Medical Superintendent of the South Western Fever Hospital.—*Lancet*, June 17, '99.

It is now customary to regard the presence or absence of the Klebs-Löffler bacillus as sufficient to determine the diagnosis. Although in the large majority of cases this relation holds good, more extended observation has shown that the test is not by any means so reliable as was originally believed, for two reasons. In the first place, a typical and even severe or fatal attack of diphtheria with distinctive clinical appearances may occur in which careful and repeated examination of the throat and secretions may fail to reveal a single diphtheria bacillus. Moreover, characteristic and even virulent bacilli may not infrequently be found in the throat secretions of healthy persons, especially if they have been in contact with cases of diphtheria. In a consecutive series of 140 cases of scarlatina in which the throat secretion was bacteriologically examined, diphtheria bacilli were detected by Dr. Sims Woodhead in 36 per cent, although very few presented features which suggested diphtheria. Ranke, of Munich, found diphtheria bacilli in 53 per cent. of his scarlet fever cases. The more or less persistent rhinorrhœa so often seen during convalescence from scarlet fever in young children is in perhaps the majority of cases found to be teeming with bacilli morphologically difficult to distinguish from those of true diphtheria. In some, as was shown by Dr. Todd, of the London Fever Hospital, the discharge contained genuine Klebs-Löffler bacilli, as evidenced by their virulence when injected into susceptible animals. It is a curious fact that the bacilli in these cases are almost invariably limited to the nasal discharge and do not invade the faucial or laryngeal mucous surfaces, and though their presence is unattended by any visible exudation or clinical evidence of diphtheria the possibility of their becoming a source of infection under favorable conditions cannot be ignored. Although a negative bacteriological examination cannot unfortunately be regarded as quite conclusive, in the hands of an expert observer a strong presumption is made out in favor of the case not being one of diphtheria.

The second, and even stronger, argument against the infallibility of the bacteriological tests is the wide difference of opinion amongst bacteriologists as to what is and what is not a diphtheria bacillus. A bacillus which is regarded by one observer as a true bacillus which has undergone a temporary attenuation is held by another equally experienced observer as a pseudo-bacillus, or one which is of an entirely distinct species and incapable under any circumstances of acquiring virulent pathogenic properties. To the first observer the case is one of diphtheria, potentially at any rate; to the other it is not a case of diphtheria, at all. Until the limits of normal variation both in respect to form and virulence can be agreed upon no practical differentiation is possible, and as long as an appeal to the results of injection into the lower animals is necessary for a decision the test must remain of limited value in practice.

Having briefly alluded to the disabilities of the bacteriological test alone in the diagnosis of diphtheria, the writer summarizes its utility in actual practice as follows: A negative result after careful examination of material taken from the throat and of the culture derived from it on at least two occasions, may be held to practically exclude diphtheria. A positive result after

examination of a throat presenting a definite pellicular exudation, or from the larynx without visible exudation on the fauces, may be regarded as sufficient evidence of diphtheria. The presence of short bacilli (suggesting diphtheria bacilli) in the nasal discharge alone, even though attended with isolated spots of exudation on the tonsils is not distinctive proof of diphtheria unless confirmed by inoculation into animals.

In the differential diagnosis of faucial diphtheria it is mainly in connection with follicular tonsillitis and the exudation throats present in some cases of scarlet fever, that difficulty is most often experienced. From follicular tonsillitis the differentiation may be most difficult and it may be impossible apart from the bacteriological test. The distinction is rendered none the less difficult owing to the fact that in some cases of diphtheria the exudation commences at the very points which are most characteristic of follicular tonsillitis—viz., at the mouths of the follicular crypts in the form of spots or little patches which at a later stage enlarge and ultimately become confluent so as form a continuous pellicle, covering the tonsil, but at an early stage the appearance of both is very similar. The clinical features on which some reliance can be placed are that in follicular tonsillitis the spots rarely coalesce and the exudation never spreads to adjacent parts but remains limited to the tonsils. Both tonsils are usually affected very much to the same degree and the same thing holds good for the swelling of the subjacent glands, while in diphtheria it is perhaps more common for one side to be involved more than the other and for the gland swelling to be proportionately greater. In follicular tonsillitis albuminuria is far less common, but the temperature is usually higher—in fact, the general statement is justified that the constitutional disturbance in follicular tonsillitis is likely to be more pronounced than in diphtheria of sufficient mildness to be mistaken for it. In a child the attack is more likely, *prima facie*, to be one of diphtheria than of tonsillitis, simply because in childhood the latter disease is relatively uncommon. Laryngeal implication never supervenes nor does any subsequent paralytic affection, whether of the palate, accommodation, or of the skeletal muscle—so distinctive of diphtheria.

In scarlatina attended with an exudation simulating diphtheria the attacks are almost invariably severe and the characteristic symptoms of scarlatina are usually so pronounced that its presence can hardly be overlooked. The difficulty usually is to decide whether the exudation is purely scarlatinal or whether scarlatina is complicated with co-existent diphtheria. The scarlatinal exudation is limited to the tonsils practically always; it is of a cheesy, friable consistence and easily removed with a camel-hair brush, it tends to disappear spontaneously in a day or two. In diphtheria, on the other hand, the exudation is usually thicker, tough, gelatinous, or fibrous looking, incapable of removal without lacerating the subjacent tissue, and it separates *en masse* after an interval of several days. In a case of uncomplicated diphtheria, of course, the exudate may be thin, friable, and easily detached, but in these concurrent attacks the condition is usually grave and the exudation as a rule presents the characters mentioned. The constitutional depression, too, is severe, and the case is very liable to terminate fatally with cardiac failure or to present some form of paralysis during early convalescence.

In laryngeal diphtheria or membranous croup the differential diagnosis from simple laryngeal catarrh may be very difficult during the early stage, particularly when the larynx is the primary seat of the disease. It is very fallacious to place reliance on a history of exposure to cold or on the apparent absence of

any source of infection. The only reliable test is bacteriological examination of the laryngeal mucus which can be easily obtained by passing a swab mounted on a bent wire into the upper part of the larynx. But this means the loss of valuable time unless the diagnosis can be made by immediate microscopical examination. In cases, however, in which the fauces are involved primarily or coincidentally with the larynx—which is common—there is not much room for doubt. The appearance of the very smallest patch of exudation on the tonsil in a case of croup is practically sufficient to establish it as one of laryngeal diphtheria.—*Med. and Surg. Review of Reviews, London, Eng.*

Water in the Treatment of Disease.—By W. Howship Dickinson, M. D., F. R. C. P.—*Lancet*, June 17, '99.

When urea and allied poisons accumulate in the body in renal disease water is the surest of eliminants. It cannot leave the body as urine without taking with it more or less of these accumulations. The urea excreted in renal disease is increased in proportion to the amount of diuresis. In some forms of chronic disease of the kidney, particularly of the granular kind, the urine is poor in quality, but excessive in amount; the patient is habitually athirst and drinks abundantly. This is his salvation. If he is so ill-advised as to greatly reduce his drink, the urine, too, will diminish and uræmia may declare itself. *Mutatis mutandis*, similar rules apply to diabetes. Water washes out the sugar and special toxic material, be it acetone or only something resembling acetone, which the diabetic process engenders; and helps to keep the system clear of the poison. Conversely the stinting of water adds to the danger of the disease. Large drinking of water may stave off for a time diabetic coma, and the same deadly condition may be suspended by the copious introduction of an aqueous solution into the veins. Consciousness may be completely though temporarily restored. Dr. Dickinson once had the almost incredible amount of 456 ounces thus injected in two operations with the space of 32 hours (*Transact. Clinical Soc.*, vol. xxiii, p. 130). The patient was comatose; she could be roused for a moment, but not so as to answer intelligently, at once relapsing into insensibility. After the injection of 106 ounces she recovered complete consciousness, but only retained it for twenty-five minutes. After the subsequent injection of 350 ounces she recovered consciousness, though not immediately, and retained it for about eight hours. It was observed that the urine passed after the operation no longer gave the acetone reaction, which before was strongly declared.

Gout is another disorder in which it is probable that the essential poison, be it what it may, finds an exit with the urine, and it is consistent, both with reasoning and experience, that this outgoing should be facilitated by water-drinking and diuresis.

There are many conditions of disease in which the body becomes waterlogged. If there is too much water in the tissues or serous cavities, and all this comes, directly or indirectly, from what is swallowed, a very obvious suggestion is the cutting off of the supply. Some cavities in some conditions, notably the peritoneum in hepatic ascites, hold their contents so tenaciously, that it is seldom that any impression can be made upon them by dry diet. A remarkable exception was afforded by the case of a boy, aged 7. He had hypertrophic cirrhosis, presumably alcoholic, and ascites nearly to bursting. He was tapped ten times in fifty-five days, with the total removal of 47 pints. The hopelessness and the inevitable end of this continued tapping suggested treatment by dehydration. The drink was

limited at its minimum to six ounces of water, a few small pieces of ice, and one and a half ounces of brandy in the twenty-four hours. This was completely successful. The cure of the dropsy was immediate, complete, and final. At his death two years afterward from an abscess of the brain, the peritoneal cavity was found obliterated by adhesions. The liver was markedly cirrhotic. Dr. Dickinson has tried the same plan in other cases of hepatic ascites, chiefly in adults, with but limited success. Renal dropsy may be more amenable than hepatic, but cannot be subjected, without risk, to a method of treatment which invites uræmia. Cardiac dropsy may be thus treated without danger, and often with much advantage, whether the accumulations be in the cellular tissues or in the serous cavities. In one instance a large diminution in the bulk of a great ovarian cyst occurred as the result of a course of dietetic dehydration. Limitation of drink in some forms of dropsy is remarkably well borne; the patient probably utilizes his own accumulations, and feeds upon himself. The writer has reduced the daily drink to minima, varying from sixteen to two ounces in the twenty-four hours. Patient complained but little of thirst, and the tongue usually remained moist. When it became dry, which was seldom, the regimen was always discontinued or relaxed. One of the results was loss of flesh, no doubt due to the failure of saliva and of appetite, and inability to take the habitual amount of food.—*Med. and Surg. Review of Reviews, London, Eng.*

The Possibility of Extirpating Malaria From Certain Localities by a New Method.—Major Ronald Ross (*British Medical Journal*, July 1, 1899), in his inaugural lecture at the Liverpool School of Tropical Medicine, said there seemed to him a possibility of being able to check, perhaps even to extirpate malaria in some localities by the extermination of those species of mosquito which carry the disease in that locality. We can never, said Dr. Ross, hope to exterminate them by catching and killing them individually. But fortunately there is a very vulnerable stage in their career, before they reach their winged condition—that is, when they are water insects, the little wriggling larvæ found in pots and tubs of water, and in stagnant puddles. These larvæ take about a week to mature in the water. When mature they rise to the surface and become the adult winged insect, and fly away. The females feed on men, cattle, or birds, and can live for weeks or even months, laying eggs a few days after each meal. Now it is hopeless to attempt their destruction when they are winged, but our knowledge of their life-history leads us to suppose that if we could make arrangements to empty out once a week all the tubs of water, the ditches, puddles, and wells within a given area, we should be able to exterminate the larvæ within that area, at least for a time—and therefore also we should be able to exterminate, at least to a great extent, the adult mosquitoes.

Fortunately, in order to extirpate malaria, it will not be necessary to declare war against all mosquitoes in general. We already know for a fact that only certain species can carry the disease. If it prove to be the case, as I think it may prove, that these particular species can breed only in a few isolated collections of water, then we may expect to find ourselves in possession of a cheap and effective means of extirpating malaria, at least from the more civilized and therefore the more important areas.

In concluding his address the speaker made the following statements, which he said had a particular bearing on the question: (a) We can detect the dangerous species of mosquitoes in a given locality by a perfectly certain method, namely, by ascertaining according to Manson's induction whether the parasites of malaria will live in them or not. (b) We can detect their

breeding grounds by searching for their larvæ. If the dangerous mosquitoes prove to be confined to the genus *Anopheles*, the problem will be much simplified, and it will be advisable to declare war against the whole genus. The larvæ of this genus can be distinguished by any intelligent European by the fact that they float flat on the surface of the water, and the adults can be generally distinguished by their having spotted wings. (c) In order to obliterate pools which breed dangerous mosquitoes, they must be filled up or drained away. Mosquitoes scarcely ever breed in large bodies of water, because these contain fish. To kill larvæ in wells some appropriate drug must be sought for, but he thinks it unlikely that malaria-breeding insects often inhabit wells.—*Med. Age*.

Summer Diarrhea in Infants.—Abroad, of late years a good deal has been said of the value of tannigen in controlling the stools. Dr. Blackader, of Montreal, in the March number of *Progressive Medicine*, in an excellent review of the recent literature on summer diarrheas, quotes no less an authority than Escherich, the well-known Professor of Children's Diseases, at the University of Graz in Austria, who speaks very favorably of tannigen and claims for it a distinct disinfectant and bactericidal effect. Kraus and Biedert have also written in its praise, especially for chronic intestinal catarrh. It is a tasteless powder, therefore easily administered and is given in doses of 2 to 5 grains four times a day. It is especially useful in cases of follicular enteritis, where local measures are of little avail. Its administration is continued in lessened doses after the acute symptoms have subsided and it is said to hasten convalescence, which is often apt to be tedious.—*Medical News*, July 15, '99.

Notes on Cocaine.—According to observations made by Jenney (*Med. Record*, March 25th, 1899):

I. Cocaine is not a Simple Alkaloid, but a mixture of at least two alkaloids, one of which is rapidly absorbed by the skin and is non-poisonous and possesses valuable properties in the reduction of local inflammation and pain; the other, to which is probably due the toxic action, is not absorbed by the skin. The human skin, when wet with a solution of cocaine hydrochlorate, apparently dialyzes the mixed alkaloids, permitting the harmless one to be absorbed.

The residuum (on the skin) was found to be a white substance, intensely bitter and producing an almost instantaneous sense of numbness when applied to the tongue. The author suggests that the variable action of cocaine, its oft noted erratic poisonous action, may be due to the composition of the different samples of the drugs; some containing a large proportion of the highly toxic alkaloids.

II. The Action of Cocaine Hydrochlorate on the Skin. Where an aqueous solution of cocaine hydrochlorate is placed in contact with the skin a portion of the drug is absorbed, and if the surface contact be sufficiently large and the time sufficient, symptoms appear similar to those experienced when chewing the leaves of the coca plant.

Although the quantity of cocaine so applied may be many times the maximum internal dose, no toxic action takes place. The local anesthetic effects peculiar to cocaine are somewhat modified. If applied to the skin over bruises the action is strongly marked, the discoloration and congestion of the tissues are rapidly reduced to the normal; the pain and inflammation subside more gradually, but the pain seldom returns, except in deep-seated injuries, after the effect of the anesthetic has passed. A solution of 10 or 20 grains

to the oz. of water is a suitable strength and the parts must be kept moist with it as absorption ceases where the skin becomes dry.

Care must be exercised that no abrasions are present as the toxic principle will be absorbed at points where skin is broken.

Cocaine solution may be employed in the treatment of bruises, sprains, and many local inflammations. As a "pain paint" in the quick reduction of bruises it has no equal.

[I have observed marked results follow the application of 10 drops of rather warm cocaine solution in the ear during the early stage of ear ache. The tympanic membrane should be intact in the child or the treatment would not be safe.—W. H. W.]

A Safe and Simple Method of Removing the Placenta.—Herman Gasser, M. D., in the *Medical Record* says: During my first two or three years of practice, it was my habit to use Credé's method of expression of the placenta, with general satisfaction to me, but in nearly all cases there was complaint of pain by the patient as a result of the manipulation.

In one rather protracted case of this kind I ordered the patient to press it out while also using Credé's method. It came at once with readiness and ease. It seemed to linger in my mind that at some time or somewhere I had been taught or had read that this might cause inversion, and hence watched with care the contraction of the uterus. Since then in four hundred and eighty confinements it has been my constant practice. At first, it is true, I felt my way gradually, but with ever-increasing confidence, so that at the present time I feel that I can complete the third stage of labor, whenever I want to, and that, too, without complaint by the patient and with a minimum amount of pain.

After the second stage of labor is complete, it is usually my practice to keep track of things for about ten or fifteen minutes, which also in the meantime gives the patient a rest. I then catch hold of the cord with my right hand, gently grasping the fundus through the abdomen with the left, when I direct the patient to press it out, which she generally does at once. When by gentle traction on the cord and slight compression on the fundus I find it coming, I order the patient to relax her efforts.

Since using this simple and sensible method I have not had any "adherent placenta" that we hear and read so much about. That they exist, though rarely, no doubt is true. Gentleness and patience should be practised to secure the membranes intact, for much of the future comfort and progress of the patient is dependent upon this seemingly simple procedure.

The "Bemiss Rules" for the Diagnosis of Yellow Fever.—Owing to the fact that yellow fever has found access to the Atlantic seaboard not far from our border, we believe the following rules will be of interest, and reproduce them:

The Louisiana State Board of Health has lately issued a circular embodying the rules arranged by the late Professor Samuel Bemiss. The circular is substantially as follows:

The following groups of symptoms shall be considered to indicate yellow fever:

Group 1.—A person after a sudden attack has a fever of one paroxysm, attended with marked congestion or blood stasis of the capillaries of the surface, conjunctiva and gums, with a history of probable exposure to infection, and no history of a previous attack of yellow fever.

Group 2.—A person after a sudden attack has a fever of one paroxysm,

followed by an unusual prostration, albuminous urine, yellowness of the conjunctiva or skin, and having no positively authenticated history of previous attack of yellow fever.

Group 3.—A person has a fever of one paroxysm, albuminous urine, black vomit, suppression of urine, and a general hemorrhagic tendency under circumstances where exposure to infection is a possibility.

Suspicious Cases of Yellow Fever.—The following symptoms associated with fever of one paroxysm in a patient who has been apparently exposed to infection, and has never had yellow fever, shall be held to justify in either of the six following cases a suspicion of this disease—viz.: 1. Suddenness of attack, either with violent pain in the head and back, injected eyes and face, or marked congestion of the superficial capillaries. 2. Want of that correlation between pulse and temperature usual to other forms of fever. 3. Albuminous urine. 4. Black vomit. 5. General hemorrhagic tendency. 6. Yellowness of the skin

The following cases shall also be suspicious: 7. Any case respecting which reputable and experienced physicians disagree as to whether the disease is or is not yellow fever. 8. Any case respecting which efforts are made to conceal its existence, full history, and true nature.

In the event of death in a suspicious case a post-mortem examination should be made when practicable. Both before and after death yellow fever is especially and pre-eminently characterized by the fact that it is *par excellence* a hemorrhagic fever, marked by capillary congestion and its sequelæ; hence post-mortem evidence of a general hemorrhagic tendency in internal organs, especially in the digestive, in preference to the urinary tract, shall be held to confirm the suspicion.—*New York Medical Journal.*

Statistics of Death Under Chloroform, Ether and Nitrous Oxide Gas.—(*Med. Times and Hosp. Gaz.*; Ref. *Calcutta Med. Rec.*, XVI., No. 21, p. 658).—During the first quarter ending March 31st, 1899, 18 inquests were reported on cases of death under an anesthetic, namely: twelve males and six females—from January 5, February 10, March 3. Of these were from pure chloroform: eight males, aged 40, 22, 41, 37, 33, 63, 54 and 5 years; six females, aged 44, 2, 73, 11, 6, and a child, age not stated. From pure ether: two males, aged 52 and 50 years. (Ether is held seven times safer than chloroform.) From nitrous oxide: one male, aged 12 years. Not stated: one male, aged 55 years, administered by Dr. Edgar Willett, St. Bartholomew's. If the ratio of deaths is 1 in 4,000 under chloroform, 1 in 28,000 under ether, and 1 in 100,000 under nitrous oxide, it follows that in England alone 54,000 surgical operations were performed under chloroform, 56,000 under ether, and 100,000 under nitrous oxide, or 210,000 operations in three months. Specialists in anesthetics must have had a busy time.

The Immunity of Arabs From Typhoid Fever.—Some time since M. Vincent reported at a meeting of the Academy of Medicine held in Paris, that it was his observation that the Arabs were not one hundredth as susceptible to typhoid fever as French soldiers. In his opinion this immunity does not rest on a previous attack, nor in the individual is it gradually developed from the use of water contaminated with typhoid germs, but it is a natural immunity. The blood on examination shows no serum reaction and has the ability to resist the invasion of typhoid fever germs.

The great immunity enjoyed by the Arab is largely attributed to his general abstemious habits and to the simple vegetable diet to which he confines himself.—*Lancet.*

Appendicitis Maxims.—By M. O. Terry, M. D., Utica, N. Y., Ex-Surgeon-General State New York.—Remember that constipation and irregularity of the bowels are the factors to be considered, and that diarrhœa is simply an effort on the part of nature to relieve impaction, congestion and inflammation.

2. That cathartic medicine in some form should be administered at once, but that half an ounce of castor oil and same quantity of sweet oil is to be preferred, followed immediately by a glass of hot water, which dose is to be repeated in three hours unless a thorough evacuation has been induced.

3. That the condition of the bowels desired is a stool free from hard lumps and yellow in character.

4. That morphine or opiates in any form should *never* be given in any state of the difficulty, as it smothers symptoms and arrests the peristalsis of the bowels, a condition found in impaction, which at times nature tries to relieve by diarrhœa.

5. That for *pain* speedy relief is obtained by repeated hot flaxseed poultices covered with hot sweet oil or applied to the abdomen before the poultice. Also that enemas of half a pint of sweet oil followed by soap or soda water in large quantities are useful.

6. That in sharp attacks the high or colon enema should be given, and at times the patients should be placed in the Trendelenburg position.

7. That glycerine and water, in the proportion of 1 to 4, is to be used at times to dissolve the impaction.

8. That food in acute attacks should be omitted and only water allowed, and that freely. Later, oatmeal gruel, strained; milk, peptonized; mutton or chicken broth with strained rice gruel.

9. All of the above suggestions should be carried out as indicated, vigorously, systematically, and perseveringly.

10. The remedies used throughout, as indicated, are: Aconite, veratrum vir., belladonna, bryonia, phenacetine, calomel and soda tablets, pulsatilla, and arsenicum. Tinctures are given in doses graded to the inflammation and idiosyncrasy of the patient in hand.

11. The calomel is given for two purposes in conjunction with the soda: (a) For its cathartic effect when the castor oil cannot be taken. It will be necessary in these cases to give from two and a half grains with three times the amount of soda, followed by a glass of hot water, to five and occasionally ten grains.

12. (b) For chronic recurrent appendicitis with marked thickening, and plastic exudate into the surrounding tissues.

13. If you ask when to operate, I advise following the indicated line of rational surgery. If the quick pulse and pain does not subside speedily, or show improvement within a few hours, it will be good surgery to operate—if the patient will allow you to do so. If they do not, continue the "oil treatment" *vigorously*.

14. The easily diagnosed pus case requires speedy surgical attention.

15. That half an ounce of sweet oil, followed by a glass of hot water, taken half an hour before meals, should be continued until pain or soreness ceases, which may be three months. As improvement ensues take two doses a day, and finally one.—*The Medical Times*.

To Abort a Cold—Max Nassuer asserts that an incipient cold in the head can be checked every time if the nose is thoroughly rinsed out with a weak solution of potassium permanganate, which seems to have a specific action upon the germs causing the trouble. He claims that the public will

have a higher respect for the profession when it is proved that colds can be successfully aborted by following the physician's directions. He checks colds in the first hour or so, and thus escapes all the catarrhal and bronchial annoyance that follows in their train. He has a strong solution of potassium permanganate on hand—about what can be taken up on the tip of a small knife, to half a liter water. A few drops of this strong solution are added to warm water until it is colored a pale pink. After blowing the nose vigorously, both nostrils are rinsed out well with this weak solution, allowing the fluid to run out through the other nostril and through the mouth. Each nostril is then wiped out with cotton on the finger to mechanically remove all remaining germs. A small dry plug of cotton is then pushed well up into each nostril and the nostrils filled with the weak solution, with the head held back, allowing the cotton to soak it up. The cotton is left undisturbed for about an hour, for the warmth and moisture to produce their effects, when the plugs are expelled by blowing the nose. Even an established cold is favorably influenced by this treatment, but it is most effective when the sneezing, tickling and increased secretions announce the advent of the cold, which he considers a highly contagious infection.—*Klin. Therap. Woch., Journal Am. Med. Ass'n.*

A Point About Incisions and Scars in the Hairy Scalp.—Dr. George H. Monks (*Boston Med. and Surg. Jour.*) calls attention to the fact that scars in the scalp often seen unduly broad, much more so than the nature of the injury and the prompt healing of the wound would lead one to expect. His attention was called to this fact especially by a case in which he desired to remove a broad cicatrix across the back of a boy's head. The cicatricial tissue was dissected out, the edges of the wound carefully coaptated, and a dressing of cotton and collodion applied with the satisfactory result that he had primary union and only a linear scar. However, in the course of a few months, the scar was as broad as before the operation. In searching for a cause for this, he examined the scar carefully with a magnifying glass, and found that all of the white band was not cicatricial tissue, but that there was the linear scar at the top of the band and that below this was a *bald* space. This he attributed to the fact that the hairs upon the back of the head growing in an oblique direction, the roots have the same direction; and by making the usual incision at right angles to the surface of the scalp, a number of roots were cut off. The hair from these roots came to the surface below the line of incision, and soon came out on brushing the head, leaving a space bald. He advises using care in making scalp incisions, and suggests that they be made in the same plane as the hair roots, thus avoiding the bald space below the cicatrix.

Plastic Surgery of the Nose.—The vitality of the tegumentary and cartilaginous tissues is well illustrated by a case reported by Dr. Abbott-Anderson in the *Lancet*, of March 11, supplemented by an additional report and illustration in the issue of April 29. A man aged 30 was engaged in sharpening a knife, when it slipped and in some way managed to slice off a piece of the nose, $1\frac{1}{4}$ inches in length, from above downward. The victim went first to the druggist who in turn sent him to Dr. Anderson. There he waited fifteen minutes before seeing the doctor who, on recognizing the state of affairs asked for the severed piece. This not being at hand a boy was sent for it and returned with it in ten minutes. It had been found on the kitchen table by the second cook who took it for a piece of calf head or pig's ear. During the boy's absence, the raw surface was carefully bathed

with an antiseptic solution and, on his return with the missing piece, it was thoroughly washed in a warm saturated solution of boric acid and then fixed in place with twelve silk sutures. For four hours thereafter a fresh hot compress of boric lint, wrung out in boric solution, was applied every five minutes, and to this the operator attributes his success. Lastly, it was carefully dusted with euophen and done up in: 1, a piece of green protective; 2, wet boric lint wrung out in boric solution; 3, dry boric lint; 4, double cyanid wool; 5, gonorrhea bag to act as muff, and 6, bandage. The wound healed by first intention all round. The sutures were removed the fourth day, and the picture published in the *Lancet* of April 29 shows no deformity whatever. The case is interesting as showing that a piece of severed tissue left neglected and thoroughly blanched could at once resume its vitality and function after thirty-five minutes' separation. Such cases of successful minor surgery of this nature are well worth reporting.—*Journal Am. Med. Asso.*

[A few months ago Dr. H. S. Lott, of Salem, N. C., reported in the N. C. MEDICAL JOURNAL a case of a colored man whose forefinger was severed between the first and second joints. The colored man left the doctor's office with the severed finger tip in his pocket, promising to come back "in a few minutes," but the doctor did not see him for two years, when to his surprise he found his "patient" with four good fingers on each hand. The finger had been placed in position on the stump, bloody and dirty, and held there by means of a cloth bandage, resulting in perfect union.

A physician in eastern Carolina—name forgotten—reported in our hearing a case of a completely severed ear which was stitched in position and union resulted.—EDS.]

Solid Food in Typhoid Fever.—W. Buschejew (*St. Petersburg Med. Woch.*, Nov. 26th, 1898) reports better results with a series of eighty soldiers with abdominal typhus, fed with bread, a chop, boiled meat, eggs, milk, tea, wine (one or two ounces), than with a series of seventy-four fed with liquid food. Since the introduction of solid food two years ago there has been but one death from perforation and two from generalized peritonitis out of 509 patients. There were no local complications from the solid food; the general health was less depressed and recovery more rapid.

An American Writer has been urging upon the municipal authorities of Philadelphia the importance of sand filtration of public water supplies. A rough calculation shows that typhoid fever alone, in 1896, caused upwards of 5,000 deaths in thirty-five American and Canadian cities, exclusive of the deaths from the same cause in suburban towns and villages. That the death-rate from typhoid fever can be very materially decreased by sand filtration of water supplies, is easily demonstrated by reference to the statistical returns of the large European and American cities that have introduced the system. For instance, in Berlin the mortality from typhoid fever has, by a filtration system, been reduced to 4 in every 100,000 of the population. In Amsterdam, in 1890, the death-rate was 19 in 100,000, and in 1896, after the introduction of the filtration system, it was reduced to 3 in 100,000. In Hamburg, the proportion was 28 in 100,000 in 1890, but an epidemic of cholera compelled the institution of radical measures for the purification of the polluted Elbe water; and in consequence the typhoid rate has fallen to 6 in 100,000.—*Med. and Surg. Review of Reviews*, London, Eng.

Appendicitis Does Not Always Need the Knife.—"I protest against the use of opium, except in rare cases, as it has a tendency to mask the symptoms of the disease and leads the patient to the grave. I protest against the argument of Dr. Niles, that every case ought to be operated upon, and the appendix is never to be left. Out of 300 post mortems on as many bodies it was found that 100 of the individuals had had appendicitis at some time in their lives, and had all recovered from the disease. I dispute the assertion that through surgical operations all but two per cent. of the cases can be saved. I challenge any operator in the room to take 100 well persons and operate upon them without killing more than two per cent. We all fail, gentlemen. I do not know why, but we all fail. I do not believe in operating on all cases of appendicitis. I'd rather have a live man with an appendix than a dead man without one. (Applause.) I do not believe with the witty Frenchman that no case is complete without an autopsy. (Laughter.) If the patient is no worse after forty-eight hours of observation, let him alone; let him get well."—Dr. W. W. Keen, at the Denver meeting of the American Medical Association.

The Diagnosis of Scarlet Fever.—The main points to be borne in mind are :

1. Initial vomiting, very constant in children under ten, less so above that age, and rare in measles, German measles and diphtheria.
2. Undue frequency of pulse—say 140 to 150—out of proportion to the other symptoms.
3. The rash beginning on the upper part of the chest, over the clavicles and about the flexures of the neck, often well marked on the back of the waist.

To discriminate between scarlatina and German measles, Lindsay is in the habit of relying on the following points: In scarlatina there is initial vomiting; a brief but well marked prodromal stage, with vomiting, chills, headache and sore throat, sometimes going on to ulceration; no early enlargement of the post-cervical glands. In German measles there is no vomiting, no prodromal stage, the rash being often the first symptom and always appearing on the face; little or no constitutional symptoms; no ulceration of the throat; a very characteristic early enlargement of the post-cervical glands.—*Medical Age*.

Some More Don'ts.—The Don'ts extant at this time are numerous, but there is room for a few more of a different kind:

Don't fail to renew your subscription when the time has expired.

Don't fail to notify the publisher when you have changed your place of residence.

Don't fail to advise the office when you discontinue.

Don't leave this duty to the postmaster.

Don't forget or neglect to do the gentlemanly thing.

Don't throw the statement of your account in the waste basket and leave the publisher under the impression that the statement was not received.

Don't fail to make note of it when a bill is presented for payment.

Don't conclude that no personal honor is involved in unpaid dues on subscription.

Don't discriminate between debt due for your selected journal and one due you from your patient.

Don't forget that the golden rule is binding here as elsewhere.

And Don't forget that money is required to conduct a medical journal.—

The Medical Herald.

Therapeutic Hints.

To Disguise Cod-Liver Oil.—

R Olei morrhue..... 150
 Olei eucalypti ether..... 2

—DUQUESNEL.

Delirium Tremens.—Sulphate of atropine, one-sixtieth of a grain administered hypodermatically, in all cases produced a quieting and deep sleep.—DR. TONVIME.

Hysteria.—

R Camphor. Monobrom ,
 Extr. valerian..... aa 3
 M. ft. pil. No. xxx. Obduc. fol. argent. S. One pill three times a day.

—KRAFFT-EBING.

Powders for Ovarian Neuralgia.—Martin's formula is given as follows in the *Riforma Medica*, for March 25th:

R Extract of Belladonna..... 3 grains
 Extract of stramonium..... 4½ "
 Lactophenine..... 90 "
 M. Divide into twenty powders. Two or three to be taken daily.

Acute Tonsillitis.—Dr. Geo. Fay, in the *Atlanta Med. and Surg. Jour.*, recommends the following :

R Tinct. Aconite..... 3 ss
 Chloroform-water 3 ii
 Distilled water 3 iv

A teaspoonful every five minutes for 12 doses ; afterwards a dose every hour. If necessary repeat the mixture and direct the repetition to be taken as before, beginning with five-minute doses.

Neurasthenic Headaches.—Dr. Joseph Collins states that in neurasthenic headaches, associated with low vascular tension, caffein, either alone or in combination, gives excellent results. The following formula he has found particularly useful:

R Caffein citrate..... 5 grains
 Sodium bromid..... 10 "
 Sodium bicarbonate..... 10 "
 Pulv. tartaric acid..... 10 "

M. Make into one powder.
 Sig. Take in water while effervescing.

Or—

R Caffein salicylate..... 1 gr.
 Ammonium salicylate } of each 5 "
 Phenol salicylate }

M. Make one capsule.
 Sig. One capsule every three to four hours.

Or—

R Caffein..... ½ to 1½ grains
 Phenacetin..... 5 "

M. Make one capsule.
 Sig. Take with hot water, and repeat in one hour.

—*Medical News.*

Enlarged Glands.—Where surgical interference is inadvisable, use the following ointment night and morning :

R Ichthyol 3 j.
 Ungt. hydrargyri.
 Ungt. belladonnæ aa 3 j
 Unguent. petrolei 3 vj.
 M.—*Keen, Ex.*

Whooping Cough.—J. Madison Taylor has found antipyrin of great value in the treatment of whooping-cough. The dose for a child is from $\frac{1}{2}$ to 1 grain every three hours. He employs it as in the following formulas :

R Antipyrin.....gr. ss. to j.
Ammon chlor.....gr. ijss. to v.
Syr. limonis..... $\frac{3}{4}$ ss.
Aquæ q. s. ad. 3.

Or,

R Antipyrin.....gr. ss. to ij.
Ammon. brom.....gr. j-ij.
Ammon. mur.....gr. v.
Syrup.....q. s. ad. $\frac{3}{4}$ j.

Formula for Quinin in solution.—The prescribed dose of the following mixture is added to a wineglass of water in which five grains of sodium bicarbonate have been dissolved, and is drunk during effervescence. The taste of the medicine thus given is not unpleasant, and it is well borne by the stomach :

Quinin sulphate.....1 dram.
Citric acid..... $2\frac{1}{2}$ drams.
Lemon sirup } of each 15 grains.
Simple sirup }
Distilled water, to make.....5 fluidrams

Mix.—Ten drops to be given as directed.

—*Practitioner.*

Pruritus.—

R Menthol..... $\frac{1}{2}$ ij
Cerat. Simp..... $\frac{1}{2}$ ij
Ol. amygdalæ dulc..... $\frac{1}{2}$ ij
Ac. carbolic..... $\frac{1}{2}$ ij
Pulv. zinc. oxid..... $\frac{1}{2}$ ij

After cleansing the parts, apply night and morning.

—*Kelsey, Philadelphia Medical Journal.*

Hoarseness.—For hoarseness in singers and speakers, Botey commends the following:

R Cocain. hydrochlor.....gr. xv
Strich. sulph.....gr. $\frac{3}{4}$
Aq. dest..... $\frac{3}{4}$ ij
Spray throat.

And—

R Cocain. hydrochlor.....gr. $\frac{3}{4}$
Tinct. aconiti.....m x
White sugar and marshmallow.. q. s.

Ft. pastillas No. lxxx. Sig. To dissolve in the mouth.

—*Gillard's Medical Monthly.*

Erysipelas.—

R Tr. aconiti..... $\frac{3}{4}$ ss.
Ext. gelsemii fl..... $\frac{3}{4}$ ij.
Chloroformi..... $\frac{3}{4}$ i.
Aq. ammonii..... $\frac{3}{4}$ i.
Ext. belladon. fl..... $\frac{3}{4}$ ss.
Tinct. saponis comp..... $\frac{3}{4}$ ss.

M. S. Apply with a camel's-hair pencil three or four times daily to the inflamed surface.

—L. HILL, JR.

Syrup of Arsenate of Iron.

The *Riforma Medica* for May 12th credits the following to Griggi:

R Arsenate of sodium..... $4\frac{1}{2}$ grains,
Pure ferrus sulphate $5\frac{1}{2}$ "
Citric acid.....12 "
Distilled water.....150 "
Syrup.....14.850 "

M.: From two to six teaspoonfuls daily, before meals.—*N. Y. Medical Journal.*

Dyspepsia with Flatulence:

R	Tinct. gentianæ.....	} āā 4	(3 i.)
	Tinct. valerianæ.....		
	Tinct. nucis vomicæ...		
	Chloroformi.....		
		I	(gtts. xx.-xl.)

M. Sig.: Ten to twenty drops in water before meals.—*Centralblatt für die gesammte Therapie.*

Nasal Catarrh.—

R	Sodii bicarb.....	3 ss.
	Sodii biborat.....	3 ss.
	Glycerini	ij.
	Listerini	i.
	Aquæ	3 iij.

This is a modification of Dobell's solution, and, when slightly warmed and used as a spray, is excellent for cleansing and disinfecting the nasal cavities.

—J. ADDISON STUCKY.

Publishers' Department.

It is remarkable how quickly some products are accepted by the profession, while others prove failures, even after exhaustive efforts to bring them into prominence before the profession. Alphasol, that most excellent disinfectant to be used not only in the toilet, but in the surgeon's amphitheatre and the physician's office, has been accepted readily. No doubt intrinsic merit plays an important part in the success of any product, but many which have considerable value never reach the extensive use which they deserve. The Alphasol company, however, have met with immediate good results, largely no doubt through the energy of the company's president, Mr. G. S. Smith. Alphasol is certainly an ideal mouth wash and disinfectant, to be used as a spray, or for local application in diseases of the ear, nose, and naso-pharynx.

WM. GEDDES, M. D., 1720 14th St. Washington, D. C., says: Aletris Cordial has proven, in a case of dysmenorrhea of some years' standing, wonderfully efficacious, and has, apparently, given to the sufferer complete relief. This being the first case in which I have had occasion to try the Aletris Cordial, and sufficient time having elapsed for me to speak of the permanence of the cure I can say that I propose to continue the use of Aletris Cordial in all such cases, and wherever a uterine tonic is indicated.

SANMETTO IN PROSTATITIS, CYSTITIS, CHRONIC GONORRHEA, AND VESICAL IRRITATION.—I take pleasure in saying that Sanmetto in my hands has proven its superiority to other remedies in prostatitis, cystitis, chronic gonorrhea and general vesical irritation. I prescribe it with confidence every time, and in cases not attributable to mechanical causes, I feel sure of relief every time. In gleet its action is marvelous, the worst cases yielding readily, and I shall continue its use.

Anderson, Ind.

ORAN E. DRULEY, M. D.

THE INFLAMMATORY CONDITION IN PERITONITIS, ETC.—An interesting reference to an extensively prescribed remedy is found in that valuable text-book, "Materia Medica and Therapeutics," by Finley Ellingwood, A. M., M. D., Chicago. The substance of the article is to the effect that the influence as a pain-reliever of the popular analgesic—Antikamnia—is certainly next to morphine, and no untoward results have obtained from its use, even when given in repeated doses of ten grains (two five-grain tablets.) It is especially valuable during the progress of inflammation, and given in pleuritis or peritonitis it certainly abates the inflammatory condition, relieves the pain at once and the diffused soreness shortly, as satisfactorily as opium. It does not derange the stomach or lock up the secretions. It is also of value in pain of a non-inflammatory character, and is a convenient and satisfactory remedy in headaches without regard to cause, if the cerebral circulation be full.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, SEPTEMBER 5, 1899.

No. 5

Original Communications.

Report of a Case of Urethral Calculus with Amputation of Penis.

By DR. H. F. LONG, Statesville, N. C.

IT is somewhat rare that one finds a patient with a urethral calculus which has formed in the urethral canal. Sometimes a calculus, which has formed in the bladder or kidney, after finding its way to the urethra, becomes impacted there and at once makes its presence known by marked obstruction to the flow of urine. It is rarer still that one finds a patient with a urethral calculus which he has carried for years and which is of very large size, with obliteration of the urethra for an inch of its length at the glans penis and yet without a grave systemic condition or symptom showing itself.

The patient was first seen on Sunday, May 21st, 1899, and the following history elicited:

When quite young, perhaps 10 years old, while descending a ladder, patient fell and injured the foreskin and glans penis. There was a high grade of inflammation of the parts, resulting in phimosis. To relieve the latter, a physician who was treating the case divided the foreskin back to corona. The complete operation of circumcision was not performed, and the cut edges of the foreskin adhered to the glans and in a short time complete union was accomplished. The pressure exerted by this attachment of the foreskin, and the injury to glans by the accident, almost closed the urethral canal, but for a time the patient was able to void his urine through the narrowed urethra. Within a few months the calibre was so small that the urine could only pass through drop by drop, and at last this became impossible. Then what the patient called a "bealing" appeared on the side of the glans. This broke and urine and pus were voided through the opening. The urine was voided through the opening thus made for some time.

Before a great while another "bealing" came, and this was followed by numerous other "bealings" until the glans was honeycombed by the fistulæ or pus (tracts) "bealings." This condition continued for years, gradually growing worse. The patient suffered many things of many doctors and took

unlimited quantities of balsam copabia and such-like drugs without benefit. Patient was now 47 years old, married, but without issue. Had not been able to work for quite a long time and was anxious that some relief be given even though he lost the offending member.

On examination the penis was found to be enormously swollen and oedematous, the skin dark colored, red and angry looking. The glans penis had numerous fistulæ scattered over its surface from which there was a constant discharge of pus and urine. Numerous small spots seemed gangrenous almost, and a very foetid odor was noticed. On examination a hard mass was felt in the urethra, which patient said had been there a long time, and which could be moved back and forth along the urethral canal.

The parts were prepared for operation and the patient was anæsthetized. Hemorrhage was controlled by surrounding the root of the organ with a narrow rubber cord. An incision was made through the glans and into the urethra. The glans penis was found to be full of pockets containing pus—in fact, was practically destroyed, and was traversed in all directions by fistulæ through which the urine dribbled constantly. The portion of the urethra containing the hard substance was split open and a calculus, $2\frac{5}{8}$ inches long, 2 inches in circumference at largest part, was found and removed. This calculus was round, but shaped like an Indian arrow head.



NATURAL SIZE OF STONE.

It weighed, one week after removal, 240 grains; though the surface was smooth, it was irregular in size, but hard and firm. The urethra had dilated to accommodate the calculus. The urethral canal had been totally destroyed for about one inch of its length, from just behind the glans outward, so that not even a trace of it was left. As said before, numerous small patches of this portion of the organ were almost gangrenous, and the urine and pus had so injured the tissues that an amputation was thought necessary.

A modified circular amputation was decided upon. The corpus spongiosum, containing the urethra, was left somewhat longer than the rest of

the stump, the urethra was slit up, the lower half stitched to the skin of the under surface of the penis and the upper half to the corpus cavernosa. The skin flaps were then sutured, an aseptic dressing was applied, after dusting the parts with boracic acid. The patient rested well that night, the operation having been performed late in the afternoon, and got up next morning and went to the urinal and emptied the bladder in the normal manner for the first time, he said, in twenty years. The wound has healed rapidly, and the patient is going about the streets as though nothing had ever happened to mar the usefulness of his organ.

My theory regarding the formation of the calculus is as follows: The urethral canal having been closed by the foreskin, which was not removed completely, the urine was thus filtered through the glans penis, leaving behind in the urethral canal the salts of uric and lithic acid, forming in this way the large calculus which had rendered this man's life miserable for twenty years.

**Report of a Case of Prostatic Hypertrophy, Operation by I. R. Trimble,
M. D., Bay View Hospital, Baltimore, Md.***

By ROBT. L. FELTS, M. D., Charlotte, N. C.

BEFORE reporting this case I will briefly summarize the anatomy and anatomical relations of the prostate gland:

The prostate gland is situated immediately in front of the neck of the bladder, behind and somewhat below the symphysis pubis, and rests upon the rectum, through which it may be distinctly felt, especially when enlarged. In the upright position of the body, with moderate inclination forward, the prostate is vertical, its base being directed upward and apex downward. It measures about one and a quarter inches from base to apex; greatest transverse diameter about one and three-quarter inches, and greatest thickness about three-quarters of an inch, and weighs from four to six drams. It is described as being about the size and shape of a horse-chestnut, composed of two lateral and usually, a middle lobe. It is perforated by the urethra, running from base to apex, and nearer its upper than lower surface.

HISTOLOGY.—It is enclosed in a thin, firm, fibrous capsule. It is composed of a glandular substance and muscular tissue, the latter constituting the proper stroma of the prostate, the connective tissue being very scant and simply forming thin trabeculae between the muscular fibres; the muscular tissue is arranged in two layers; the outer dense layer, just beneath the capsule, forms an investing sheath for the gland; the second layer is a dense circular layer surrounding the urethra, continuous behind with the internal layer of the muscular coat of the bladder and blending in front with the fibres surrounding the membranous portion of the urethra; between these two muscular layers strong bands of muscular tissue form meshes, in which is imbedded the glandular structure of the organ.

*Read before Charlotte Medical Society, August 1, 1899.

The function of the prostate gland is not positively known. It is without doubt a sexual organ, and is not related to the urinary tract except by its accidental position; this is shown conclusively by its embryology and by its comparative anatomy.

Of the pathological conditions of the prostate, which confront the surgeon, none demands more frequent attention than prostatic hypertrophy. According to Dr. Messer's researches, conducted at Greenwich Hospital, it would seem that prostatic hypertrophy becomes of pathological importance in about twenty per cent. of all men over sixty years of age. The following may be considered the histological classifications of the different varieties of hypertrophy:

CLASS A. A uniform increase of the glandular and stromal elements constituting a true hypertrophy; the gland, in this variety, does not attain to great size and seldom causes symptoms of importance.

CLASS B. Overgrowth of the stroma, the connective tissue being chiefly involved, without much change in the glandular elements; this is the form most commonly met with, and may attain to great size.

CLASS C. In which the overgrowth of the glandular tissue predominates over the stromal; this is rarely permanent, the glandular hyperplasia usually disappearing, being replaced by fibrous tissue of greater density.

CLASS D. Which is a localized overgrowth, the enlargement being confined within the capsule of the gland, although with certain portions enlarging more rapidly than others.

ETIOLOGY.—A great many different theories have been advanced in explanation of enlarged prostate. It is, of course, known to belong to the period beyond middle life; of the views advanced as to its cause, those of Velpeau seem the most plausible. He considers the growth which makes up the enlargement in prostatic hypertrophy as analogous to the fibro-myomata so frequently found in the uterus; the arguments in favor of this view being: (1) The prostatic vesicle is the analogue of sinus genitalis in the female; the structure of the prostate and of the uterus is strikingly similar; the histology of the growths themselves is equally similar, differing chiefly in the predominance of the glandular elements in prostatic tumors; and these disturbances occur at about the same time in the sexual life of the two sexes, viz., during the latter half of the reproductive period.

Morbid Anatomy of the Hypertrophied Prostate.—On cut section the surface exudes more than the normal gland, and is more irregular, the grayish-red color of the organ is more pronounced than normal. Microscopical examination does not reveal any new elements, the enlargement consisting entirely of an increase in the structures normally present.

There seems to be a peculiar tendency to tumor formation in hypertrophied prostate, while, in rare instances, tumors are found in what appears to be otherwise normal prostate. Thompson found tumors present in seventy-five per cent. of the cases of hypertrophy examined by him, and Messer

reports isolated tumors in twenty-seven of a series of thirty-five cases of hypertrophy examined by him.

The following case of prostatic hypertrophy may be of some interest (let me add parenthetically, that the case only came under my observation from April 7th till May 1st, and I am indebted to the chief resident physician for the progress and history of the case since that time): During my residency in the hospital in April last, J. C. White, aged (60) sixty, entered the hospital, suffering with retention of urine, claiming not to have voided any urine in (48) forty-eight hours, except a few drops at a time, with almost constant desire, and during the efforts to evacuate the bladder, the contents of the bowel would often escape, the effort at micturition being attended with great pain and tenesmus. On percussing over the bladder I found it distended to within about 2.5 c.m. of the umbilicus. After repeated efforts to catheterize I was unable to introduce any instrument beyond the prostatic portion of the urethra, failing even to introduce a filiform bougie. His bladder was then aspirated, obtaining about 2000 c.c. of urine. The introduction of a finger into the rectum revealed a prostate very much enlarged, apparently about twice its normal size. the middle lobe seeming to show the greatest amount of hypertrophy.

An examination of the urine showed a high degree of cystitis, and, being unable to catheterize, it was deemed advisable to remove the prostate.

The following day the visiting surgeon was called, and the patient was prepared for the combined suprapubic and perineal prostatectomy.

A suprapubic incision was made down to the bladder, the walls of the bladder being sutured to the margin of the abdominal wound, and the bladder then opened; a transverse perineal incision was then done; the fingers of an assistant were used to press down and steady the prostate from the upper opening, bringing it in easier reach of the operator's finger; the capsule of the gland was opened, and with great difficulty the prostate was at last shelled out; in doing this the urethra was torn across. About two hours were consumed in doing the operation.

Neither opening was closed; a small rubber tube about the size of a No. 18 catheter was inserted through perineal opening into the bladder, and gauze was loosely tucked in the upper opening. The patient had a temperature of 100 1-5 the afternoon of the operation, pulse 88 and respiration 20. The following day his temperature had gone up 1-5 degree, pulse 104. That p. m. temperature up still another 1-5 degree, pulse 116. The second morning following the operation his temperature came to 99 4-5, but again rose in the afternoon; he continued a fluctuating temperature chart (often reaching above 102, and on one occasion, May 4, going to 105 2-5) until May 20, when it came down to 100, not going above that point again.

The third day following the operation it was found that drainage was insufficient; so a larger tube was introduced, passing from the perineal opening through the bladder and through the suprapubic opening. The bladder and wounds were irrigated with bichloride solution 1:10000 t. i. d.,

first clearing out with hydrogen dioxid. The dressings for the wounds consisted of sterilized gauze and absorbent cotton, which were changed every three hours, the perineal dressings almost invariably being soiled with the contents of the bowel. On May 1, the continuous drainage tube was removed and separate drainage tubes inserted into the bladder and perineal opening. On May 11, the suprapubic drainage tube was discarded. On May 19, patient had an attack of pleurisy.

June 9, suprapubic opening closed, patient walking all around, voiding urine freely—per urethra—and without pain, now having perfect control of his bowel and bladder; inferior communication with bladder closed. June 22, perineal wound about healed, tube having been removed for some time. July 11, transferred from hospital, perfectly well; can easily go six hours at a time during the day without voiding his urine, and seldom has to empty bladder at night. Has perfect control of bowels, and both wounds have healed perfectly.

Questions and Observations on Pernicious Malaria (Hemorrhagic Malaria, Hemorrhagic Fever, Yellow Chills, or Yellow Disease).*

By E. E. DICKINSON, Smithfield, N. C.

I AM best acquainted with the type of this affection which I think should be known as yellow disease, since the chill is slight and is no ill omen in itself.

What is the nature of this condition? What the real cause and its source? The usual definition is: "It is remittent fever of peculiar type, characterized by sudden jaundice and bloody urine." Its spread has been so recent and its occurrence so limited to certain localities, that adequate investigation and literature have not accumulated. All admit its close relation to ordinary intermittent and remittent malarial fever. But where lies the great difference, one being so malignant and the other so benign? Is the difference one of degree or of kind? Why hæmatogenous jaundice in the one and hepatogenous jaundice in the other?

From the total number of eighteen cases coming under my observation and care, which I have diagnosed strictly pernicious, I have been unable to obtain a history of a single case that had suffered previous ill health or a succession of chills. Indeed, the general history is that they were unusually well. So it would seem that it cannot be a gradual accumulation and multiplication of the different types of malarial poisoning in the system which finally explodes with one mighty shock, overpowering the energies battling against it and decomposing the blood by its electric force. It cannot be distinguished in the beginning from an ordinary chill, nor can it be differentiated until the icterus of the skin appears.

Many cases of hæmaturia occur with an after chill, that are in no sense hazardous and really make but little impression on the system, nor does the

*Read before Seaboard Medical Association, Wilson, N. C., Jany., '99

hæmaturia return even without the aid of quinine. I have seen no case prove fatal or serious except those in which the hæmatogenous jaundice occurred, but no case in which this jaundice occurred proved otherwise than fatal or very serious, and made a very slow, doubtful recovery, requiring several weeks to regain even ordinary health. But unless the physician is more honest than is often put to his credit, he will forget conscience and report all cases of any kind of jaundice with or following chill and hæmaturia as one of pernicious malaria on which his apt remedies have had the happy effect desired.

To one who has seen a case of yellow disease from beginning to end, can there be any doubt as to the differentiation of this jaundice from that accompanying the milder forms of malaria? I think not. The former is too plain for comfort. The difference is that in milder malaria there is a gradual development of hepatogenous jaundice, this development extending over several hours, the discoloration always being obscure and dingy, there being great contrast between the hue of the conjunctiva of the eye and that of the general skin surface. But in the pernicious form the jaundice is hæmatogenous, due to the decomposition of the red blood corpuscles, and it develops very rapidly, usually appearing almost suddenly about two or three hours after the chill, and the discoloration gives to the skin a peculiar metallic lustre, very much resembling that of gold, yet not altogether so vivid. This one discrimination properly made will enable anyone with ease to diagnose this condition, or certainly to differentiate it from the milder malaria.

But other important symptoms are a rapid, weak, and often a flickering pulse, usually reaching as high as 160 pulsations per minute; extreme, incessant and distressing nausea and vomiting; a tendency to dry skin and mucous membrane with, not very frequently, an extremely high temperature, the majority of cases presenting a temperature between 102° and 103° , which persists without fluctuation, except slight morning and evening exacerbations and remissions.

How shall we best prevent the occurrence and spread of this dreaded disease? This is a question of momentous importance. The disease has been spreading rapidly for the last five years, and as yet we know nothing practically of its source: But we look for and believe it to be where least preventable in the low swampy and marshy bottoms and that it is transmitted to us through the atmosphere at night. This, however, lacks proof.

Two observations I note as peculiar. First, Smithfield is situated on the eastern bank of Neuse river and contains more inhabitants than the zone of country with a radius of two miles around it. There have occurred in this zone in the last three years, more than twenty well authenticated cases of this disease and many more of simple hæmaturia. But in the town there has not been one case, and so far as I know not even a case of hæmaturia. Second: In this zone the white and the colored population are about equal, yet all the pernicious misfortunes have visited the whites, not one the colored; though I have seen three cases of hæmaturia in this race. Is the negro

immuned against this disease? Then his serum may yet prove useful in a higher science than Manlyan politics.

How can we best treat this disease? I believe as nearly an iron-clad rule can be adopted in this disease as in any we know, though there are many points of individual difference. Of chief importance is to avoid those remedies that are sure to kill. These four things, morphine, atropine, heroic purging and heroic cinchonizing, I have learned to avoid as I do a grave yard. Yet I believe every text book I have examined recommend the first of this list.

Morphine or atropine given for restlessness and nausea, only increases both and paralyzes the secretion of all glands, the kidneys included. A gentle, sure purgative is efficient and demanded. But too heroic purging with the vain hope of removing the jaundice misjudged to originate from the liver, serves only further to exhaust the already much depressed vitality and to thus knock its last leg from under it. Quinine in sufficient doses to kill an entire family in good health, I believe, is capable of producing more deaths than the disease itself unassisted.

What are the conditions that must be relieved? After arranging to get surely into the circulation fifteen grains of quinine hydrochlorate every twelve hours, only two important conditions are to be met; and these successfully combated and the patient tided over twenty-four hours, one may feel comfortable for the first time. These two conditions are nausea and anemia. Nausea may almost always be relieved by avoiding morphine and giving 3i or 3ii of potassium bromide every two or three hours or twenty or thirty grains of lithium bromide equally often. Also, these are all that are necessary for the restlessness. The anemia and decomposed blood I believe to be the real cause of all the deaths. This is as true exsanguination as that from a spurting artery. Then what is to be done? A new circulatory medium is to be supplied and the debris of decomposed blood removed. The circulation might be renewed by intravenous transfusion, but I have never done it. I have used instead large subcutaneous injections of normal saline solution into the cellular tissue and large saline injections per rectum. I thought this to do too much good, though one case proved fatal in which it was used, but I believe it greatly prolonged life in this. In all cases the pulse grew slower and stronger, thirst was established and nausea succumbed to its demands and the kidneys secreted more freely.

How to renovate the blood? Give no remedy to check hæmaturia as it is only decomposed blood that nature is relieving herself of. The object is rather to encourage this free flow of bloody urine. It is seldom a case dies if the kidneys are doing their duty well. Other symptoms are to be relieved as the indications demand. If fever is high, skin dry and hot, or liver at fault, these must have attention. As an all-around remedy for these conditions and also to keep the kidneys active, two grains each of acetanilid and caffen citrate and four grains each of sodium salicylate and ammonium bro-

mide, all in one powder or capsule every two or three hours, I give with satisfactory effect.

On the above plan of differentiation and treatment my mortality rate has been $33\frac{1}{3}$ per cent.

The Education of Young Girls—The Modern School Curriculum and Its Demands Upon Health.*

BY WILLIAM E. FITCH, M. D., Savannah, Ga.

[Georgia Medical and Surgical Journal.]

THE first thing I ever saw in my life was a woman. It seems that the physician who was awaiting my coming had promised that I should be a girl, and when I arrived on the scene of action he was very much disappointed and looked very angrily at me, whereupon, if my memory serves me aright, I got mad and twisted up my little face and hollered at him as loud as I could. This little defence seemed to bring him to his senses, for he apologized—said I was a fine boy. We shook hands and I was handed to a motherly nurse to have my first toilet made. From that day until this, I have been on most excellent terms with women. The fact is, that I liked them so well, that soon after I graduated I came to the conclusion that it was not well to always live in single blessedness. You will believe me, then, when I tell you I have their best interests and welfare at heart, and this paper is written with the hope that some of the modern educational methods now in vogue may be so changed as not to overwork the child during puberty. The law of growth in the human body is one which has not been always considered in relation to the development of girls. The energies of the body rise and fall in each individual with a certain rhythm. Each swell of physical growth is designated to bring about certain morphological and functional conditions, and when these conditions are not secured at the time Nature is accustomed to bring them about, there is absolutely no possibility of their completion and perfection in subsequent years. The maturity of the sexual apparatus and its function in the girl must be secured in that stage of development known as puberty. It is of all of the periods of growth of the woman the most important for her future health, both physical and mental. Therefore, it is the one above all others which should be considered in the education and training of the girl. All the intelligence and care that it is possible for teachers and physicians to bestow upon her should be given at this time. Not only motherhood and subsequent health, but sanity and life-long happiness are dependent upon the perfection of pubescent growth and function. It does not seem unreasonable, therefore, that the customs and prejudices of the time should be entirely laid aside in considering the proper education of the girl in and before pubescence.

In the first place, it is to be recognized that our present educational

*Read before the Georgia Medical Association at fiftieth anniversary, Macon, Ga., April 16, 1899.

methods, in both private and public schools for young ladies, are productive of imperfect women. From my own study of this subject I have come to the conclusion that many radical changes must be instituted in the care, rearing and education of young girls. My observation leads me to assert that a girl should not be sent to school until about 8 years old, and then kept in school until she is 12 years old, as it is at or about this age the American girl begins budding into womanhood, and progresses with great rapidity until she reaches the fifteenth year. During this period of pubescence the girl's moral and physical nature needs more attention than is usually given. The mothers of this country are ruining the health of their daughters by rushing them through the preparatory schools, being ignorant of the harm they are doing. The young lady during this period of pubescence should have her studies so planned that she will not be overworked—have light tasks, light literature, be under her mother's constant, careful instruction; yet at or about this time, the fourteenth year, the girl, having been rushed by overwork through the preparatory school, is sent away to boarding school or college. And after carefully examining catalogues from the most prominent educational institutions in the United States, the following is found to be about the routine duties:

7 a. m. Rising bell. 7:45 a. m. Down to chapel for prayers. 8 a. m. Breakfast. 8:30 a. m. Up stairs to study hall. 9 a. m. Down to recitation room. 10 a. m. Up stairs to music room; piano. 11 a. m. Recitations, history, etc. 12 m. Dinner. The afternoon and evening is taken up in a similar routine of recitations, calisthenics, dinner and study hours, until the bell taps for lights out, which is about 9 p. m.

It is apparent to all that the young lady is run up and down stairs from 7 a. m., to 9 p. m. Just think of the tax upon her energy at a period in life when she should have nothing to do except light studies, reading, traveling, etc., and be allowed time and opportunity for maturation and development. In female schools it is the yearly history among the girls—the ever-increasing number of *breakdowns*, nervous prostration, menstrual disorders, ocular troubles and hysterical insanity. Neurasthenic states are extremely common during puberty; especially are they met with in high-school girls, who are overburdened with the work put upon them. I have often been astonished at the work which some of these children have to bear. The hours of continuous application which the less mentally able among them have to put in daily are frequently greater than are usually demanded of seasoned adults, and the truly heroic efforts which they often make to bear their burdens are simply pitiful; they are spending more vital force than their income, breakdowns are the result; such breaks are sometimes fortunate, for the attention is then directed to the condition and needful rest is afforded; but many, indeed the majority, manage to carry their burdensome tasks, at least apparently, and the damage done is not so readily detected, but it is none the less real. Headaches, irritable tempers and hebetude are but the indices of the neurasthenic state, which, if neglected at this age will a few years later be recognized as

nervous prostration. It is because the enormous strain to which they are being subjected is not recognized. While the insanity of puberty is a well recognized condition, it is usually considered uncommon. But in its milder forms it certainly is not uncommon. Various delusions, recognized as such by the victim, occur frequently, but are fought down and concealed from a false sense of shame, to be disclosed later in life, when a broader mental horizon permits the former victim to realize that there was nothing dishonorable in the matter. The psychosis of this period, I have reason to believe, are much commoner than is generally supposed. The interesting feature is that they disappear as the active pubescent changes cease.

A case illustrative of pubescent neurasthenia came under my care some two years ago. The patient, a college girl of 12, who had just begun to menstruate, had an attack of hives. The disorder itself was trifling enough, but her great depression and her weird expression of countenance told of a deeper trouble. Upon questioning her I found that she was always tired at the end of the day, and greatly depressed at the end of the school week, and not always refreshed at the beginning of the next week. Deeming that the forces antagonistic to genesis were in the ascendant, I took her out of school, stopped her music, cut down her physical exertion, and soon had the gratification of finding her at the end of a few months a rosy, blooming girl, free from all neurasthenic manifestations, and gaining rapidly in weight. I did not imagine from this, however, that she was well, but kept up this programme until the beginning of the next school year.

Such cases as this are common enough, and the plan of management is an everyday affair, but to make the management most effective, a recognition of their true pathology is essential, and it is for the recognition of what I believe to be the most important factor in this condition should be borne in mind that the first menstruation is not the beginning of puberty, but is a phenomenon which occurs in the course of puberty. For at least a year before this sign, other evidences of the condition can be noted, and two or more years elapse after that, before the active pubescent period is over.

When pubescence has been established and the girl has become a woman, which is usually after the sixteenth year, it is possible she may now be able to withstand the trials and burdens of our mediæval and pedantic educational curriculum and take her place in the last year of the high school, or begin the college course. Woman must become a productive and independent member of society; she is not to be the ornament that the woman of the Turkish household is, nor the quiet drudge and housekeeper of the German family, and she ought not to be the game of gynæcologists, which the women of the upper classes of society have latterly become. Less than one third of the women of the country are brought up in cities; the surroundings of the country girl are quite different from those of her city cousins, and yet they are much influenced by the same customs and habits of the great aggregations of people from whence civilization takes its name and inspirations; the training of the country girl differs very little from that of the city girl. They

are taught to read and write, spell and figure, write compositions, read French and Latin, and to despise all manner of domestic or manual labor. They dress as their sisters in the cities do, begirt themselves with corsets and other ills of the modern dress, to which I called your attention in a paper on the subject of "tight lacing" at our last annual meeting.

Why are the women of to-day more prone to diseases of the genital tract, and to deficiency of lactation, both evidences of an inferior genetic power, than were their mothers and grandmothers, unless from some change in environment? I see in it evidence of defective pubescent nutrition and trace it, in part at least, to the high pressure of modern life which to-day throws upon growing children new social duties, intellectual labors, and even new physical labors, with consequent diversion of energy into channels of immediate activity which should be potentialized. An objection which will at once be raised is, that the work of the gynæcologist is concerned largely with disorders of an infectious origin, and that the organisms which affect the adult could hardly be much affected by attention to their hosts during puberty. Directly, certainly not, but the soil can be, and in the infectious disorders it is the soil of nutritive element which is much more in need of study than the invading organisms themselves. The ideal life of the child is one in which she comes in contact from necessity and pleasure with all the things which go to make up the physical necessities and comforts of the common life conclusions.

1. At eighth year place the girl in school, public or private. 2. At the twelfth year and during the period of puberty be careful not to overwork her mental faculties, allow plenty of outdoor amusements, travel, light literature, and keep her constantly under her mother's watchful care and attention, that she may be advised of the changes she is soon to experience. 3. After the fifteenth year let her finish the preparatory high school courses and enter college, when her constitution will be equal to the arduous duties she will have to perform (climbing stairs for recitations and prayers). 4. I would advocate that the quarterly anthropometric measurements with quarterly medical supervision should be used as a basis for the diagnosis, for the next quarter's exercises and studies. 5. The curriculum should correspond to the needs of the child's physical and mental capacities.

SELECTED PAPER.

Notes on the Therapeutics of Blistering.

By MEREDITH YOUNG, M. D., Mast. Surg., D. P. H.

[The Therapist, London, Eng.]

IT is not the intention of the writer of this article to discuss fully the whole question of the therapeutics of blistering, but merely to encourage, if possible, its more rational use by the exemplification of successes which have followed its scientific and, less frequently, its empirical employment; in other words, to focus those successful experiments which have been made by clinical observers who have extended the field of usefulness of

blisters after careful argument and patient investigation, and to use the knowledge thus gained as a fingerpost to point out the best way for future extension of their use.

It is necessary, first, however, to briefly summarize the theories of the action of blisters, and roughly these fall into one of two classes, (1) vascular, (2) nervous.

The vascular theory, or, as Milner Fothergill terms it, the "hydraulic theory," is based upon the law of Schroeder van der Kolk, that the blood supply of deep parts comes from the same trunks as that of the superficial parts overlying them. Therefore, by increasing the vascularity of the superficial parts that of the deeper parts is to some extent diminished, and the pathological condition of those parts, so far as it depends upon congestion, active or passive, is benefited. Brunton's theory, that there are, beneath a blistered surface, two other strata, the uppermost of which is congested and the lowest of which contains contracted blood-vessels, finds a coincident phenomenon in Brown-Séquard's experiment in which, on applying irritation to the skin over the kidneys, the superficial vessels became congested, whilst the renal arteries contracted.

As bearing upon this point, too, we may cite Whitla's statement that blisters "may affect neighboring parts by the direct spread of the irritation originally produced, as the peritoneum and pleura have been seen inflamed from the application of a blister to the abdomen or chest; and the writer believes that in this way he has seen pericarditis produced *in thin subjects*. * * * * Through thick parietes a blister would not likely cause congestion of the pleura."

The vascular theory, then, readily explains the utility of blisters in removing passive engorgement, promoting absorption of chronic products of inflammation, stimulating indolent reparative processes, and so on.

For the explanation of other effects of blisters we have to go to the nervous theory, and this, properly speaking, is the theory of counter-irritation. It is not sufficiently recognized that the law of Schroeder van der Kolk applies to the distribution of nerves as well as to that of blood-vessels. Quite apart from the anatomical fact, we have many proofs in practice that this is so, a simple instance being that an anodyne lotion over the skin of the knee-joint will materially lessen pain in the joint itself. This gives us at once the key to the manner of action of blisters, and particularly of "flying-blisters," in rousing patients from a state of coma or adynamia. The irritation of the peripheral nerve-endings is transmitted to their centres, and is radiated or reflected from these centres to various other parts of the system.

Certain beneficial results following the action of blisters are not to be explained by either of these theories alone; and, indeed, in most instances both vascular and nervous influences are bound to be appreciably and simultaneously exercised—for example, the increased metabolism and nutrition, usually localized, but sometimes even general, which follows their use.

Robin has shown that blisters encourage phagocytosis, and also increase

the amount of air passing through the lungs in a given time. This observer declared that by the use of blisters it was possible to double the amount of oxygen absorbed by the lung-surface during a short time. This would also explain the use of blisters in pneumonia, and in certain kinds of narcotic poisoning where oxygenation of the blood is the essence of treatment.

The modes of producing blisters are many, and are sufficiently well known. The various preparations of cantharides are the principal agents employed, and are graduated in strength so that one may obtain practically any desired degree of action. The emplastrum cantharidis is productive of little or no pain in its vesicant action. This should be borne in mind, as it may be a disadvantage when we desire to stimulate. When a quick effect is desired the acetum cantharidis—or, better still, the liquor epispasticus—is indicated, and the same rule applies when a purely local effect is intended. The fact that the active principle of cantharides is absorbed through the skin and eliminated chiefly by means of the kidneys should be remembered. It is made the basis of a caution in a subsequent paragraph.

Where cantharides is contra-indicated, a ready means of blistering is found in the actual cautery, or, perhaps better still, in soaking a piece of gauze or absorbent wool in liq. ammon. fort., applying this to the skin, and covering with a watch-glass or piece of oiled silk for a few minutes.

In applying blisters it should be seen that the skin is quite free from oily matter and perspiration or moisture. The former is, of course, attained by the use of soap and water, and the latter by wiping with absorbent wool, or better, by dusting with a little Fuller's earth, violet powder, etc., and then flicking this lightly off before the blister is applied.

The old-fashioned method of preparing a surface for blistering was to cleanse it with vinegar and water, and it had at least two advantages : firstly, that the active principle of cantharides is soluble in acetic acid, whereas it is not so in water ; and, secondly, that vinegar has a detergent effect, and assists the removal of accumulated layers of cuticle.

The preparation of the surface before the application of a blister is well worth attention ; if it be not seen to, the skin may often not even be reddened after several hours, and both doctor and patient be disappointed.

Blistering must be employed cautiously under the following circumstances :

(1) In thin persons, immediately over any organ which lies near to the surface. The reason for this has already been given.

(2) In the case of paralysis, where the trophic function of the nerves being lost or impaired, a blister may degenerate into an ulcer, or may even slough.

(3) In the exanthemata. One reason for this is that, in children especially, even a mustard plaster may produce a slough, owing to the peculiarly tender condition of the skin. Another reason, which applies only to cantharides, is that in such diseases as enteric fever, scarlet fever, and diphtheria, we have circulating in the blood a toxin which of itself is frequently suffi-

cient to produce albuminuria, and if we add to that another substance, one of the effects of which is also albuminuria, it may have the same result as the putting of the last straw on the camel's back.

(4) In children, especially the very young, where from what may be perhaps best described as the closer knitting together of the various tissues, irritation may readily be conducted from one part to another. The shock to the system and the resulting depletion from a large blister must also receive careful consideration in such subjects, as well as in very old and feeble persons.

(5) In kidney diseases of any kind whatever. The writer has once seen a case where a small cantharides blister was applied to the back of the chest of a patient suffering from pleurisy and nephritis, in which the urine became smoky within twelve hours, and an acute exacerbation in the loin pain was caused, although previously the urine had been quite free from blood casts, epithelium, etc., for some time, and in which only a slight haze had indicated the presence of a trace of albumen for three days. The blister in this case was only left on for about three hours.

(6) In lingering diseases, and those in which the patient will have to be confined to bed for some time, no point of pressure should, of course, be blistered.

(7) In cases where blistering is used in delirious patients, or even in very young children, it is better to paint with one of the blistering fluids. If a plaster be applied, the patient may tear this off, or displace it so that it would come to be over a dangerous part, *e.g.*, it may be moved from the forehead to the eye.

(8) In pregnancy cantharides blisters must be cautiously used because of the probable irritation to the genito-urinary system.

It is not intended to discuss the more common use of blistering, but only to mention those which are new in practice or have been recently lost to sight.

As a mode of the *endermic administration of drugs* blisters are not very often used, though they have some excellent applications.

In *neuralgia* it is sometimes found that though local counter-irritation and local anæsthesia have failed to benefit the patient when used separately, when used simultaneously the joint effect has at once dispelled the pain. It is curious that in spite of the fact that capillary exudation is taking place, absorption should be not only possible, but should occur quickly at the same time. It may be, however, and probably is the case, that the effect is purely nervous, and that the blister having removed the epidermis, the terminal nerve-filaments are brought more directly under the influence of the anæsthetic. When drugs are used for endermic application in this manner the dose should be a fairly large one— $\frac{1}{4}$ to $\frac{1}{2}$ gr. of atropine may be given, for example.

There may of course, be no necessity for the admixture of an anæsthetic in all cases—blisters *in se* have a certain analgesic effect.

A phase of practical counter-irritation which one seldom sees nowadays is the application of large and *dilute* blistering agents over large tracts of skin, chiefly on the abdomen and chest. This was at one time a favorite method of treatment in certain low types of enteric fever, typhus fever, and other andynamic states where the condition was not so much one of exhaustion as temporary depression. Used in this way, two things must be observed: (1) The blistering agents must be dilute, and kept on for a short time only, so as to act as skin stimulants. (2) Some diffusive stimulant must be administered internally at the same time. The cardio-vascular centres are often wonderfully affected by this treatment. Murchison recommends the application of blisters to the shaven scalp or forehead for the same condition, and says "he has known cases of deep coma where life seemed to be saved by its use."

In stubborn cases of *insomnia* with delirium, the effect of opiates may be enhanced by the application of a blister to the forehead or nape of the neck.

In *lung congestion*, and especially in the passive engorgement of enteric fever, blisters have often been recommended as beneficial in the same manner as blood-letting. It must be pointed out, however, that blisters applied in such a condition are very liable to develop into ulcers or sloughs of a very troublesome and exhausting character.

Ordinary mustard poultices offer almost the same benefits, with this addition, that the stimulus may be frequently repeated without any disadvantage resulting.

In *pericarditis* blisters should be employed with very great caution, and if there is even a suspicion of concomitant kidney mischief they are better entirely avoided. If, however, their use be specially desired to lessen effusion, they should be applied only until vesication has just commenced, then quickly removed, and a simple poultice applied to encourage further exudation.

In *heart mischief*, combined with *intermittency or irregularity*, one of two things may give relief: (1) Paint the blistering fluid in a kind of square round the cardiac area, not over it, and carry two prolongations of the painting up into the neck over the sympathetic nerves. This is often sufficient to give comfort in itself. (2) If no benefit follows the actual blistering, then open the blisters and apply a little lint covered with ung. belladonnæ over the cardiac area for a few days.

The use of the blister over the sympathetics in soothing an intermittent heart, was first, it is believed, pointed out by B. W. Richardson. In one of his cases morphia could not be tolerated because of the nausea and depression it produced; a blister was then tried over the whole of the front of the neck, with immediate and marked benefit. In a second case of intermittency with irregularity and palpitation, such as to keep the patient awake at night, sound and refreshing sleep followed as soon as the effects of the blister began to be felt.

The treatment of *acute rhumatism* by the application of large blisters to every implicated joint (the Davies-Hall treatment) is one which appears

to have little to commend and much to condemn it. It is principally to be deprecated as not treating the disease, but merely a symptom, and as being liable to cause injury to the urinary organs, which are in an irritable state. The sole recommendation for it appears to be that it reduces joint effusion.

Cases of *ringworm*, particularly in the scalp, are often marvellously benefited by the application of liq. epispasticus to the affected part, which has been previously cleansed, and over which the hair has been cut short. A single painting is often sufficient. Care must be taken that the fluid does not run over adjacent delicate parts. This may be avoided by smearing a ring of vaseline round the affected spot first. I would not, however, yield the palm to anything but the liniment of iodine for this condition.

Probably arguing on the same lines, *e.g.*, that *alopecia areata* is a parasitic disease, Sabouraud advises the blistering of the bare patches in this disease, afterwards opening the blisters and painting with a solution of silver nitrate, 1 in 15. Over a hundred cases treated in this way are said to have given rapid and complete cures.

Watson recommended blisters as specially useful in *scrofulous* affections, and several authorities state that blistering cases of *lupus vulgaris* usually causes the nodules to shell out, leaving a healthy surface, which may be healed by the application of some emollient—*e.g.*, zinc glycerine jelly.

Whitla states that the Russian peasantry cure *hydrophobia* by the prompt blistering of all bitten parts, the tincture of cantharides being at the same time taken internally. This is a statement which must be carefully weighed before acceptance.

It is in the field of nervous diseases, however, that blisters find their most extensive use, and in that field, perhaps, most commonly in *neuralgic* affections. In these cases Anstie's rule should never be forgotten, that blisters over the painful spot increase the pain, but applied over the posterior roots of the spinal nerves relieve it. In what Fagge calls "the desperate *tic-doloureux* of old age," a blister to the nape of the neck frequently dispels the pain at once.

For *sciatica* the best results are obtained by small-flying blisters over the course of the nerve.

Dr. Wade, of Birmingham, advocates blistering of the back as a useful means of treatment in *diphtheritic* paralysis. In *narcotic poisoning* the patient may usually be roused by the application of blisters to the spine, insides of thighs, temples, etc.

In *neurotic hiccough*, and especially in that peculiar form produced by a sudden nervous shock or fright, blistering the epigastrium almost always proves beneficial. Blisters to the sides of the neck, over the sympathetics, also give frequent relief in this condition.

In certain cases of *facial spasm* blistering is useful, but care must be taken to distinguish the cause of the condition, as this influences the point of application. In children, where the spasm is merely the result of a wilful habit of distortion of the face, the blister should be applied over the skin which moves during the distortion, thus rendering the twitching movement painful. Care must be taken to discriminate choreic conditions.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.
Editors and Proprietors.

W. H. WAKEFIELD, M. D.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.
J. HOWELL WAY, M. D., Waynesville, N. C.
J. ALLISON HODGES, M. D., Richmond, Va.
S. WESTRY BATTLE, M. D., Asheville, N. C.
GEO. G. THOMAS, M. D., Wilmington, N. C.

R. L. PAYNE, M. D., Norfolk, Va.
H. S. LOTT, M. D., Winston, N. C.
J. W. LONG, M. D., Salisbury, N. C.
H. A. ROYSTER, M. D., Raleigh, N. C.
ALBERT ANDERSON, M. D., Wilson, N. C.

J. P. MONROE, M. D., Davidson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

INSECTS AS DISSEMINATORS OF MALARIAL POISON.

Much interest has been aroused by recent investigations into the various routes by which the poison of malaria gains an entrance into the human body. The names of certain Italian physicians and that of Major Ross, of the British Army in India, are most prominently connected with the theory of inoculation through the skin by means of the bite of insects, notably, the mosquito. Until recently it was pretty generally held that the poison found its way into the human organism by way of the intestinal canal or the respiratory tract. The observations of the above mentioned investigations, however, apparently demonstrate that the former of these routes is at least a very unusual means of entrance. In their experiments, conducted for the purpose of deciding this point, healthy persons were permitted to drink water from malarial marshes, and enemata of similar waters were given to others; while Grassi and Felitti gave blood from malarial patients to healthy subjects, yet in no single instance did malarial poisoning result. It would seem, therefore, that this phase of the question was definitely settled, unless some condition which is present in natural infection was unintentionally omitted in the experiment.

As regards infection by the respiratory tract the matter is not so clear, and the almost universal belief held by the inhabitants of malarial sections that sleeping in the open air in such localities is an almost certain means of inducing a malarial attack will require some very positive proof to the contrary before the theory of entrance by the air passages will be given up. In this connection the observations of Bignami are of unusual interest. He has noticed that the precautions adopted by the inhabitants of the highly mala-

rious districts of Italy for the prevention of malaria are equally effective against the mosquito. They sleep in houses elevated some 12 or 15 feet from the ground by means of stakes or piles; they avoid going out at night; they are careful not to sleep in the open air day or night; their windows are closed by ill-fitting shutters that do not keep out the air, but are some impediment to the ingress of insects; and they pay unusual attention to their mosquito nets, under which they sleep thoroughly shut in. Bignami ascribes the limited height to which malarial miasma is supposed to rise in the air to the fact that mosquitos do not usually fly high from the ground. The view that the chief entrance of malarial virus is through the skin, is further strengthened by the fact that the only manner in which genuine malarial poisoning has been experimentally produced in the human subject is by inoculation with blood from a malarial patient.

There is quite a prevalent opinion in Eastern North Carolina that malarial infection is largely due to the use of surface drinking water, and that the use of bored wells results in a considerable lessening of the morbidity from this cause.

In connection with the theory of inoculation by mosquitoes, Dr. T. W. Davis, of Louisburg, N. C., in a recent letter to the *N. Y. Med. Journal* calls attention to the relative scarcity of this insect in that locality, a conspicuously malarial district, and states that there is no sort of proportion between the prevalence of malaria and the number of mosquitoes; a nearby seaport town being unusually free from this disease, while mosquitoes are rife. We believe that Major Ross has in India found only one kind of mosquito which is a carrier of malarial infection, and the Italian observers mention three such species. It would be a matter of great interest to discover if our native insect belongs to either of these classes.

Meanwhile Major Ross, accompanied by several scientists, has already sailed from England for the west coast of Africa, where during the next two months they will study malaria in its home. This expedition, the first of its kind, is under the auspices of the recently organized School of Tropical Diseases at Liverpool. It is needless to say that the results of their investigations will be awaited with great interest.

STRICTLY BUSINESS.

Medical journals, although professional in character, must have a "business end," resembling, in this particular, the busy doctor, who, while spending his time and talents in a strictly professional calling *must* "tack on" enough business to first charge for his services and then to collect his fees. In this connection we desire to call the attention of all subscribers who are neglectful in regard to remitting amounts due us, to the fact that our treasury is now too nearly empty for comfort, and August bills are due. During the past ten days, bills have been sent to all subscribers in arrears, and while many have recognized the justice of, and heeded our call, others have not, and it is to them we now appeal. We need every dollar due, and

hope those whose accounts are unpaid will come promptly to our relief. While we are on this subject, we wish to speak of some changes we have made in our subscription department that will appeal, we are sure, to your judgment as being likely to reduce friction and work satisfactorily to both subscriber and publisher. All really successful journals collect subscriptions in advance, and this will be our rule in future. One year's subscription is more easily paid than two or five, and doctors are always "annoyed" when they get two or three or more years behind on their journal bills. Following, also, what appears to us to be a common sense, business rule, (and justice to the subscriber), we will notify each subscriber a month before his subscription expires and then, in obedience to the general wish of our readers, we will continue sending the JOURNAL until notified that its visits are no longer desired. If, therefore, a reader does not wish to continue a subscriber, may we ask that a postal card be mailed us informing us of that fact?

Arsenious Acid as a Preventive of Yellow Fever.—I. Da Rocha.—Dr. J. P. do Rego Cesar noticed that non-acclimated persons in Brazil, who had occasion to take arsenic for any reason, were not molested by yellow fever, and he commenced to administer it as a preventive, with most satisfactory results, confirmed by the experience of other local practitioners. Da Rocha reports, in this article, the results of daily prophylactic doses of half a milligram of arsenious acid administered during the summer season to the entire force of a certain factory, over 200 men, for the last five years. The men are frequently changing, are mostly unacclimated, live in unhygienic surroundings and infected localities, and take no precautions against contracting the disease. During the terrible epidemic of 1894, three of them were attacked but soon recovered; exceptionally light cases among the prevailing mortality. In the epidemic of 1896 twenty men contracted the fever a few days after their admission to the factory, each having received only a few doses of the arsenic. But the effects were evident in the benignity of the cases, all dismissed from the hospital in from four to six days, while a couple of extra hands only rarely employed and thus not receiving the arsenic regularly, succumbed to the disease. There have been no cases in the factory since 1896, although yellow fever has scourged the city again and again, and formerly ravaged the factory. Another group of 150 men, to whom the prophylactic doses were regularly administered, have also escaped without a single case. Persons just arriving are advised to repeat the dose three times a day the first week, twice a day the second, and thereafter once a day. No one thus treated has contracted the disease to date.

Right-Handedness.—Kellogg believes that the child is born using both hands, arms and legs equally well. Right-handedness is the result of careful training on the part of nurse and parent. Left-handedness is probably started by a burn, strain, or injury of the right hand during the critical period of babyhood. The great advantage of ambidexterity is dwelt upon, and Alexander Mott, Joseph Pancoast, Samuel F. B. Morse, Leonard da Vinci and Michael Angelo are mentioned among the other notable ambidexters. The crossed fibres to either brain are believed to be a switching off apparatus, intended for only temporary use, and all arguments based on anatomy as forcing right-sidedness are thought to be weak.—*Massachusetts Medical Journal*, Oct. 1898.

Book Reviews.

The Hygiene of Transmissible Diseases; Their Causation, Modes of Dissemination, and Methods of Prevention. By A. C. Abbott, M. D., Professor of Hygiene and Bacteriology, and Director of the Laboratory of Hygiene, University of Pennsylvania. Handsome octavo volume of 311 pages. Illustrated. Cloth, \$2. net. W. B. Saunders, Philadelphia, publisher.

This delightful volume, embodying the subject-matter embraced in the author's lectures upon hygiene, contains much that it is important that every physician should know. The writer does not attempt an exhaustive treatment of the subject of hygiene, but covers in a thorough and exceedingly practical manner that section which embraces a knowledge of the preventable diseases—surely a very important part. That he has performed his task in the most pleasing and satisfactory way any one who reads the book will testify. The first section deals with the exciting and predisposing causes of disease in a complete and practical manner. Under the second head of "Causation, Modes of Dissemination and Prevention of Special Diseases," the remarks upon typhoid fever, tuberculosis, and diphtheria are of especial value, while all the infectious diseases are discussed seriatim. "Under Prophylaxis in General," the different methods of disinfection by chemical and physical means are considered, including a careful survey of the question of immunity and susceptibility. In addition, "Important Precautions in the Management of Communicable Diseases" are considered under the several heads of Isolation, The Sick-room, Clothing, Excreta, Room Disinfection and the Care of the Body after Death. A few pages are also devoted to the subject of quarantine.

A Text-book of Diseases of the Nose and Throat. By D. Braden Kyle, M. D., Clinical Professor of Laryngology and Rhinology, Jefferson Medical College, etc. W. B. Saunders, Philadelphia.

It is an encouraging sign of the times to witness the way in which specialists are recognizing the interdependence of special work on the other branches of medical knowledge. This fact strikes one most forcibly in a perusal of Dr. Kyle's book. Much of the material in it is entirely original—to such an extent, indeed, as to make one inclined to doubt some of his conclusions. But when we go over the proofs which he adduces in support of them we are obliged to yield to the correctness of his deductions. These proofs are founded on work with the microscope, in other words are based on a careful study of the pathology of the nose and throat. The result of Dr. Kyle's pathological labors has been to overturn many of the ideas as to lesions of those organs which have hitherto, in this country at any rate, been based chiefly on clinical observation. He also presents in a condensed form, so arranged as to be of the most practical value, the results of the researches of others in the same field. Starting thus with a knowledge of the underlying condition which is to be treated, the therapeutic measures he recommends are such as are adapted to meet the diseased state. The book contains a greater variety of methods of treatment than we have ever met with before in works on this subject. In the discussion of the manifestations of constitutional diseases in the nose and throat, the author shows how clearly he appreciates the precedence to be yielded to constitutional over local measures. The subject of diphtheria is presented most ably, and the reasons given for the most complete

belief in the antitoxin, to procure immunity as well as to cure the disease, are convincing.

Dr. Kyle evidently understands the great value of classification in the study of any subject. Every reader will appreciate the classifications at the head of the various chapters. These tables will undoubtedly evoke criticism from many who will not agree with Dr. Kyle's ideas as to where certain lesions should be placed, but such differences would be bound to present themselves no matter what classification was adopted. The illustrations are by all odds the best we have ever met with in similar books. They represent things exactly as they are seen and not according to the way they are supposed to be seen.

The Mineral Waters of the United States and Their Therapeutic Uses. With an account of the various mineral spring localities, means of access, etc. By James K. Crook, A. M., M. D., Adjunct Professor of Clinical Medicine and Physical Diagnosis at the New York Post-Graduate Medical School, etc. In one octavo volume of 580 pages. Cloth, \$3.50, net. Lea Brothers & Co., Philadelphia and New York. 1899.

The author deserves the thanks of the profession for his successful classification and analysis of the various mineral waters of this country. The need for such a work as we have here, has been distinctly felt, and Dr. Crook has accomplished his undertaking in a manner most satisfactory. In the present volume more than two hundred mineral spring localities have been included that have never previously been described in any work of the kind. In fact this is the only up-to-date source from which a thorough knowledge of the various American medicinal waters can be had, all previous works upon the subject having become more or less obsolete. The first part of the present volume is devoted to general considerations regarding mineral waters and their therapeutic employment; the remaining portion contains a description of the topographical and climatic features of the several States and Territories, with a detailed account of all the mineral springs and wells in each—the whole forming a complete and most valuable collection of information upon this important subject, that we doubt not will be appreciated by the medical profession.

Scribner for September opens with an account by Frederic Irland of what he calls "the finest canoeing country in the world." He made a five-hundred-mile journey from Mattawa to the headwaters of the Ottawa and Gatineau rivers, through a region abounding in fish and moose. It has been for centuries and is now the home of the Algonquin Indian. The region through which Mr. Irland travelled with Algonquins for guides is the best sportsman's haunt left in America. Much of the wilderness is as yet uncharted. The illustrations are made from the author's abundant photographs. He will be remembered as the author of two former sporting articles in *Scribner's*, one on New Brunswick and the other on the Mingan Seigniory.

The Stevenson letters in this number have to do with the Saranac Lake region of the Adirondacks in winter, and describe the outdoor life led by the novelist and his family when he was trying to regain his health.

There is also a story of life and adventure in the Arctic regions, by Albert White Vorse.

Charles Warren (who was private secretary to Governor Russell) contributes a short story describing how a governor went back to his old fitting school and spent a day with the boys.

Grace Ellery Channing tells a love story of southern California, entitled

'Francisco and Francisca,' with remarkable illustrations by Walter Appleton Clark.

There is also another Aunt Minervy Ann story by Joel Chandler Harris.

American Pocket Medical Dictionary. Edited by W. A. Newman Dorland, A. M., M. D. Containing the pronunciation and definition of over 26,000 of the terms used in medicine and the kindred sciences, along with over 60 extension tables. Second edition. Revised. \$1.25. W. B. Saunders, Philadelphia, Publisher.

The fact that a large edition of this book was exhausted in six months, speaks much for its popularity. We have been to some pains to examine this book, and we have not turned to its pages seeking information regarding words found in current medical literature—journals—and been disappointed. The average reader of medical books or journals cannot read many minutes without stumbling over one or more words not clear to him. To him this little book is at once a convenience and a necessity. Flexible covers. Patent Index.

"Through Nature to God." By John Fiske.

In this book of 200 pages, the author, a scientific evolutionist, places before the reader the course of reasoning by which he is enabled to trace the finger of God in the various records that the scientist finds in the rocks of the past history of our globe.

This interesting book has three divisions, each containing several chapters: "The Mystery of Evil," "The Cosmic Roots of Love and Self-Sacrifice," "The Reality of Religion."

It is impossible in the confines of a short review to describe this little book. The author, an ardent evolutionist, is also a firm believer in the existence of God, and starting with the serpent's promise to woman he, in clear English of the choicest diction, passes from argument to argument, step by step, to The Reality of Religion. On page 145 he says:

"The skepticism of our day is rather sad than frivolous; it drags people along in spite of themselves; it spares but few that are active minded. * * * There is no refuge anywhere from the doubting spirit of the age. * * * A young generation grows up knowing nothing of the sturdy faith of its grandfathers except by hearsay, for it sees everything in heaven and earth called upon to show its credentials. * * * The human soul has not been cherishing in religion a delusive phantom. * * * Of all the implications of the doctrine of evolution with regard to man, I believe the very deepest and strongest to be that which asserts the Everlasting Reality of Religion."

To Dilate the Perineum.—Oliver repeats the well-known and oft-stated practice of introducing two fingers of the right hand into the vagina, and with each pain stretch the perineum in advance of the head. Extreme rigidity disappears in a few minutes under this treatment. The patient's attention being occupied by the severity of the pain, no objection is ever raised to this procedure. When the head begins to distend the vulva, the real work begins; but full expansion has by this time been secured. Two fingers are introduced behind the occiput, and this part of the head is brought well down under the pubic arch. The diameter of the head while passing through the outlet will be thus materially lessened, and so also will be the tension on the perineum. Surgically clean cloths, wrung out in hot water, applied directly to a tense perineum, often secure good results.

Medical News and Items.

Dr. James W. McGee has been appointed Superintendent of Health of Raleigh, N. C.

Norfolk physicians threaten to have another medical school there. It is said that the growth of the city justifies this step.

Dr. C. M. Poole, of Craven, N. C., writes: "I have just delivered a white woman of her nineteenth, all single births. The child was a female of 13½ pounds. Who can beat this record?"

Lost in the Mountains.—**Dr. Loryea**, of Manning, S. C., while sojourning in Tryon, wandered from his hotel and lost his way in the mountains. He was subsequently found dead at a distant point. His death was caused by heat and over-exertion.

The bronze statue in memory of **Dr. William Pepper**, Philadelphia, has been placed on its pedestal in front of the new Archeological Museum of the University of Pennsylvania, where it will remain until unveiled early in the autumn.

The physicians of Naples have been soliciting subscriptions for the purpose of founding a hospital for tuberculous patients. The Duchess of Ravaschiero has presented her large and handsome estate at Pozzuoli for the purpose, and the outlook is very flattering.

It is stated that **Mrs. Mary Baker Eddy**, of Christian Science fame, is being sued in amounts aggregating \$500,000 by **Mrs. Josephine Curtis Woodbury** of Boston. Seven different suits are pending, all of which are for alleged libelous remarks made by **Mrs. Eddy** at the First Church of Christ, Boston, Sunday, June 4.

Bubonic plague at Shanghai.—It is announced that there are a number of cases of bubonic plague at New-Schwang, and the number has slightly increased. Twenty-three deaths from the plague occurred in three days. The authorities are taking special precautions, examining all ships and junks from the north. Hitherto junks were not inspected.

Punishment of Rebellious Students.—During 1898, student insurrections occurred in all the Russian universities, and the government has decided on vigorous measures to prevent a recurrence. Any university or high school student who creates a disturbance is to be forcibly drafted into the Russian army and compelled to render service.

Changes at the Baltimore Medical College are announced as follows: **Dr. J. M. H. Rowland** has been made associate professor of anatomy, **Dr. E. L. Whitney** associate professor of physiologic chemistry, and **Dr. Charles H. Potter** associate professor of pathology. **Dr. T. R. Williamson** has been made assistant in pathology and bacteriology, and **Dr. Chas. O'Donovan** appointed clinical professor of diseases of children.

The Bubonic Plague in Europe.—Now that the plague has reached Portugal and is rumored to have been carried to Spain also, our sanitary officers will undoubtedly take energetic measures to prevent its gaining a lodgment in our own country. While it is most likely to come here by way of some British port, if at all, it may come by some more direct route, and this possibility the Marine-Hospital Service will assuredly bear in mind.

Yellow Fever has broken out in Kew West, and general quarantine is ordered. We hope the authorities will be as successful in stamping out the disease as they were at Hampton Roads.

Mr. Sam'l. G. Smith, representing the Purdue, Frederick Co., of New York, is visiting the physicians of Charlotte in the interest of Gray's Glycerine Tonic Comp., an elegant and ethical preparation that has had a large sale in America for many years. Mr. Smith will call on the physicians of the large towns in the State with samples, etc.

Victims of Venereal Disease Forbidden to Marry in Michigan.—A law has recently been enacted in Michigan, forbidding the marriage of any person suffering from gonorrhoea or syphilis. In case this law is disregarded, the guilty party is punishable by a fine of not less than \$500, or imprisonment in the State prison for a term of five years.

A Suit to Recover Medical Charges.—A physician in a village of New York has brought suit against a patient for \$10,000. The physician made ten visits to the defendant's home during a recent illness of the latter, charging him \$1,000 per visit. The defendant has refused to pay, on the ground that the charges are exorbitant. It is not stated in the published report what was the nature of the medical services rendered.

Surgeon James M. Parrott, U. S. A.—Dr. Parrott, of Kinston, well known in the State as a young man of unusual ability, has been appointed Acting Assistant Surgeon in the United States Army.

Surgeon Parrott is a young man of ability—of good parts—of good sound sense, and he is a lover of his profession and a student. We dislike to have him leave our State, but we doubt not he has chosen his new field, Cuba, in order to enable him to pursue certain studies under better conditions than he could at home.

The Evil of Continued Mental Anxiety.—Some years ago I collected the statistics regarding the lives of stockbrokers in a certain city, and was surprised to find that nearly every person who lived a sober life and continuously studied the ups and downs of the money market failed either mentally or physically in a short time—less than a dozen years—ultimately disappearing from active life. On the other hand, the men who were operators of great skill and coolness, and who lived regularly most of the time, but occasionally gave way to the drink habit and disappeared several days at a time on account of helpless drunkenness, lived longer and had fewer mental disorders. This, of course, cannot be construed into an argument in favor of drinking even occasionally, but was to my mind a very strong indication of the benefit coming from the occasional complete relaxation from intense mental anxiety. Frequent vacations passed in the woods, or at the seaside, without social duties, and where temporarily men could resort as nearly as possible to primitive life, even for short periods, would, I am convinced, be much better. Protracted anxiety without rest breaks more men than does hard intellectual effort.—*"System of Practical Medicine," Vol. iv., p. 784.*

The Plague is apparently spreading gradually in various directions, Europe being threatened from several sides. At Oporto forty-nine cases occurred between June 4th and August 21st, of which number sixteen terminated fatally. The government has decided to isolate the city by means of a sanitary cordon. Dr. Jorge, the director of the Bacteriological Institute at Oporto, has become the object of popular disapproval because he

had the courage to assert that the plague existed in the city when the authorities wished to conceal its presence. A mob gathered near his house and was dispersed only by active efforts of the police, and he was also assaulted by a member of the Chamber of Deputies. The disease was brought to Oporto from India on a ship loaded with rice. It is reported that several cases of plague have occurred at Palermo and at Naples, and it is also believed to have broken out in the government of Samara in Russia. Several cases of suspected plague have occurred at Magude, a short distance from Lourenzo Marquez, Delagoa Bay. There is little danger of the disease being brought to this port from Oporto by immigrants or in cargo, but if it is true that rats are active in the spread of the disease, there would probably be some danger in allowing a vessel from an infected port to dock here, even if there were no cases of the disease among either passengers or crew at the time of arrival.—*Med. Record.*

Osteopathy Declared Unlawful in Pennsylvania.—The Medical Council of the State of Pennsylvania decided on May 24th that the practice of osteopathy within the State is illegal, and that those therein engaged are amenable to the law.

Cancer Study.—At a meeting of the British Cancer Society, it was resolved to send Mr. Arthur C. Duffey, M. B., to the United States to investigate what is being done in the way of cancer study in the Buffalo laboratory.

Sanitarium at Fayetteville.—Drs. Marsh and Highsmith have erected a handsome, three story, brick Sanitarium at Fayetteville, and have fully equipped it with modern appliances. We wish the doctors success.

The *Times of India* publishes an extraordinary account of the plague outbreak in Samarkand. The outbreak occurred at the village of Anzop, which is situated on an almost inaccessible mountain crag 14,000 feet high. When the Russian doctors arrived they found 380 cases of plague among the 600 persons of which the population consisted. All but three of these cases terminated fatally. Dr. Lieven, one of the members of the party, had brought from Bombay a supply of Dr. Haffkine's prophylactic serum, and with this the survivors were inoculated. After this treatment there were no new attacks, and the last death occurred four days after Dr. Lieven's arrival. The result is regarded as a triumph for the Haffkine method of treatment. The disease was conveyed to Anzop by a wandering fakir.—*Med. and Surg. Review of Reviews, Lond. Eng.*

A Tale of a Wicked Druggist Who Substituted.—Once upon a time there was a man of parts, who was also a physician.

And the skill of this man was so great that the people of the land were wont to flock unto his office for advice, and incidentally medicine. As the years passed by he grew in wisdom, and the sick and suffering who sought relief from him invariably found it, for his consultation price was five. And to those whose red blood corpuscles were few and far between he always prescribed a favorite medicine, the like unto which there was nor is no equal, no not one. And the name thereof was Pepto-mangan.

And the pale people who took this medicine grew well and strong, for their blood became good. Then their souls would be full of gladness and they would return unto the Doctor laden with milk and honey, for by his advice had they not found health and happiness? And the Doctor was glorified in the eyes of his patients, and many shekels were his.

Now there was a certain Druggist to whom the people were wont to take

the Doctor's prescriptions to be filled. His face was that of an Angel, and a small halo of his own manufacture encircled his fair forehead. But his heart was black within, and verily he was possessed of a devil. And when he saw the great sale of Pepto-mangan, and the countless prescriptions which the Great Doctor was writing for this marvelous remedy, his heart was full of envy and greed.

"Why," cried he, "should not I, with all my knowledge of mixing drinks and medicines, prepare a remedy like unto this Pepto-mangan?"

So out of the iniquity of his heart he prepared him a substitute.

And to the many who came to his store clamoring for Pepto-mangan he would say that he was just out of that particular preparation, but that he had another "quite as good, if not a little better." And the good people looking up at his halo believed him for an honest man and went forth from his store well pleased at his kindness in giving them something even better than what the Doctor ordered. To others he would say nothing, but would fill their prescriptions with his own concoction and send them away in ignorance of what he had done.

And as the shekels poured in on his counter like golden rain, his soul laughed with glee, for in his mind he saw himself rich beyond compare.

But the people grew well no longer.

No more did they repair unto the Doctor with thankful hearts. Instead of returning unto him with praise and thanksgiving as before, they approached his sanctum with lamentation and wailing. And curses were his, instead of shekels.

"What ho," quoth he. "Wherefore am I getting it in my cervical region? Can it be possible that I, even I, have become a 'has been'? Or has my favorite tonic failed me in my old age?" And he made talk with his patients, seeking knowledge whereof they were no better. And after many questionings he learned of the iniquity of the man of Drugs. Then he was wroth, and with voice like the raging wind he poured forth unto the heavens the crime of the Druggist.

And all the people heard.

Therefore did they meet together, and with one accord hastened unto the store of him who had defrauded and cheated them.

And their anger knew no bounds, for they took him out into a lone place and with no unnecessary ceremony, *hanged him to a tree.*

Then on his breast was pinned a card on which were written the fateful words—"Not what he wanted—but something just as good."

No more thereafter was substitution known in the land, and the people thereof became well and lived happy ever afterwards.

TO DOCTORS.

Moral.—Beware of substituting Druggists if you expect to cure your patients.

TO DRUGGISTS.

Moral.—Beware of the wrath of the Doctor and patient on whom you practice substitution.—*Vermont Med. Monthly*, June, '99.

Obituary.—A few days ago Dr. John N. Nisbet, of Waxhaw, passed away. He was born in 1823, and had led a very active life, practicing medicine and surgery in Waxhaw. He leaves three sons who are practitioners of medicine, Dr. J. D. Nisbet, of New York City, and Drs. W. O. and Verner Nisbet, of Waxhaw.

Review of Medical and Surgical Progress.

Cerebraspinal Pneumacoccus Infection.—Dr. Bayard Holmes (*Journal American Medical Association*, 1899, Vol. xxxii, No. 24) reports an interesting case illustrating an obscure manifestation of pneumacoccus infection. The case presented the following history: A girl 15 years of age had been suffering during five (5) weeks, the attack was initiated by a chill of great severity, followed by high temperature and severe headache, the temperature fluctuating about 104° and 105° F. for nine (9) days, when there was complete remission. At the end of a week there was a return of all symptoms, which continued seven (7) days with a second remission. Two succeeding relapses occurred at weekly intervals, and it was during the fourth relapse that the author first observed the girl.

The face and body at this time showed some emaciation, pupils were dilated and there was vomiting at short intervals. The respirations were slightly accelerated. The only abnormal sensation was a general hyperesthesia, and the severe headache which was referred indefinitely to every part of the head. The hearing seemed to be equal in both ears, the sight seemed perfect in both eyes, and there was no perversion of taste. The heart, lungs and abdomen were negative on examination. The blood was examined, and relapsing fever and malaria were both excluded. The blood count showed a slight leucocytosis, but otherwise was perfectly normal. When this result had been determined a needle was introduced into the spinal canal at the junction of the third and fourth lumbar vertebræ, and the cerebro-spinal fluid allowed to run off, drop by drop. Two agar tubes and two blood-serum plates were inoculated from this serum. In twenty-four hours they had every one shown a pure culture of a diplococcus, apparently the diplococcus of pneumonia. It was by this method that the author was able to definitely determine the pathologic character of the disease.

R. L. F.

Treatment of Chronic Morphinism—Dr. Austin J. Pressley (*Journal American Medical Association*, 1899, Vol. XXXIII. No. 7) says the principal advantage to be derived from the method of slow reduction of morphine in chronic morphinism, is the lessened amount of discomfort to the patient.

Usually there is no pain or diarrhœa, no vomiting; no profuse perspiration, no extreme nervousness, and never anything like a state of collapse.

I always endeavor, and in 90 per cent. of the cases am successful in so far restoring the nervous system to its normal condition in advance of withdrawing the morphine that the amount withdrawn is not discovered by the patient. It is easily understood that the nervous system is in a most unfavorable condition for recuperation while the patient is suffering for want of morphine. The effect of any drug that may be given him as a substitute, or to quiet him while withdrawing the morphine, is equally as bad and may be worse than that of morphine itself. When the largest amount has been withdrawn, that can be done and still leave the patient comfortable, then the reduction must cease until the system has had time to adjust itself to this new condition of things. The real key to success is to keep the patient on just as small a quantity as is compatible with comparative comfort, and yet not get his dose so small that he will be miserable before the next regular hour for morphine. I give the morphine four times a day, at 7 a. m., 12 m., 5 p. m., and 9 p. m. In dividing the time in this particular manner, the patient gets his dose just previous to meals and bed time, which enables the patient to eat and sleep much better.

It is useless to ask a patient to take nourishment when he is needing morphine, and no one thing is more essential to an easy and rapid recovery than a good appetite, and there are no drugs that can compare with plenty of good food and sleep to restore the nervous system.

One who treats morphinism has no time for other practice. The most suitable place to care for these patients is in institutions devoted exclusively to that class of work, where physicians and attendants can constantly have an eye on each patient in the institution. So far as medicine is concerned, no fixed formulæ can be given; every case is a law unto itself and must be treated according to its particular condition and requirements. Baths and massage are beneficial in many cases.

In the treatment of about two hundred cases upon the above plan, my experience has been that in direct proportion to the success attained in recuperation previous to the reduction of morphine, has been the lessened amount of discomfort to the patient, and in the cases, only, that have shown little tendency to recuperation in spite of all efforts, has there been sufficient discomfort to be worth mentioning.

R. L. F.

Acute Dysentery.—Dr. St. J. V. Graham (*Georgia Journal of Medicine and Surgery*, July, 1899) states that the drug treatment of acute dysentery resolves itself into five or six drugs—calomel, opium, ipecac, tannopin, salines and quinine. If the case is seen early when diarrhea is present, with a lead-colored or brown tongue, much benefit may be derived from giving calomel, a quarter-grain every fifteen minutes, until six, eight or ten doses are taken. An acid saline is then administered, after which bile usually begins to flow. This is nature's antiseptic, and no chemical compound or so-called intestinal antiseptic can be compared with it. After this has been kept up for a sufficient time for the exigencies of the case, tannopin should be administered, combined with ipecac and opium, in the form of Dover's powder, or of each drug in simple powder combination. Tannopin should be given in ten or fifteen grain doses every two and one-half or three hours. An ice bag over the belly is preferred by the writer to any form of poultice. If necessary the bowels are irrigated with a bisulphate of quinine solution—one teaspoonful to a quart of cold water. Very little quinine will be absorbed, for it will not stay in long enough. The diet should be carefully adjusted to suit individual peculiarities and the stomach digestion. Stimulants should be used as indicated. The above treatment, which is indicated in acute cases, has proved very successful. In chronic cases, however, an essentially different drug treatment should be resorted to.—*Buffalo Med. Journal*.

According to the *Medical Record*, under the Spanish rule, in order to practice legally in Cuba, it was necessary to hold a diploma of the University of Havana or of some University in Spain, vised by the proper authority of the district. Those holding foreign diplomas were obliged to pass an examination or to obtain a temporary license. Since the expulsion of the Spaniards, the *Archives de la Policlinica* complains, many foreigners have come to the island and begun practice without let or hindrance. Our contemporary naturally holds that such an abuse should be stopped by the authorities now governing the country.—*Medical Age*.

Water Famine.—London is threatened with a water famine, as she always will be in summer until she gets some other source of supply than the charming little brooklet, disguised under the name of "Father Thames."

Therapeutic Hints.

Intestinal Fermentation with Consumption.—

- R. Ext. aloes.....gr. vi.
 Pulveris rhei.....gr. vi.
 Bezosol.....gr. ix.
 Ext. hyoscyami.....gr. vi.
 M. Ft. caps No. xii. Sig. One after meals

—Thomas Hunt Stuckey.

In Congestion of the Female Genital Organs.—

- R. Magnesii sulph.....45
 Ferri sulph.....
 Manganes. sulph.....aa 10
 Acidi sulphur. dil.....4
 Aquæ destill.....ad 200
 M. S. One tablespoonful in a wineglass of water before meals.

To Stimulate Diaphoresis.—

- R. Camphoræ pulv.....0.02-0.1
 Pulv. opii.....0.02-0.03
 Potass. acetatis.....0.02-0.3
 Sacch. alb.....100.
 M. ft. pulv. S. One powder in a cup of tea at bedtime.

—Graefe.

Professor Ewald prescribes in obstinate acute intestinal catarrh :

- | | |
|---|---------------|
| Resorcin..... | 75 grains |
| Bismuth salicylate..... | } aa. ¼ ounce |
| Tannigen..... | |
| White sugar..... | |
| Sodium carbonate..... | |
| M. Ft. pul. Sig. small teaspoonful every two hours. | |

—Georgia Medical and Surgical Journal.

Food in Typhoid Fever must be fluid and nutritious, and must admit of almost complete absorption by the stomach. It must be non-fermentable, or, in other words, aseptic. While milk will always constitute the patient's main dietetic reliance, it possesses two distinct disadvantages: 1st. It leaves a residue after but partial stomach digestion—hard curds or coagula which mechanically irritate the ulcerated patches. 2nd. It ferments in the bowel, and furnishes pabulum for germ propagation. It thus adds to the existing septic infection.

Liquid Peptonoids is an ideal food-help in typhoid fever. It is fluid. It contains the required amount of nutriment. It is completely peptonized and therefore capable of complete stomach absorption. No residue is left for intestinal digestion. It is absolutely sterile and aseptic. It cannot, therefore, add to fermentative processes. In addition it is very palatable and forms a grateful change from milk which often palls upon the appetite. It is also slightly stimulating. Such a combination of qualities leaves nothing to be desired. It can be taken plain or in milk or water as preferred.

INTRAGASTRIC NIPPERS.—Turck, of Chicago, has devised a small instrument by means of which small pieces of the gastric mucous membrane can be removed for microscopic examination, says the *International Medical Magazine*. It consists of pinchers, which can be protruded through the end of a stomach tube and closed upon a fragment of tissue.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, SEPTEMBER 20, 1899.

No. 6

Original Communications.

The After Treatment of Abdominal Operations.

By Dr. FRANK T. MERIWETHER, Asheville, N. C.

“THE fate of the vast majority of patients subjected to abdominal sections is sealed when the incision is closed.” So I read in a recent article upon after treatment of abdominal sections. This I believe to be a mistake. The closing of the incision does not complete the operative treatment. Much can be done afterwards to make or mar the success of the operation. I have seen several fatalities caused by defective after treatment, where the operation per se was a perfect success, in which the operator thought the operation was the end of therapeutics. I believe the after treatment to be a very important thing in all sections, no matter for what.

Who has not seen patients die from shock, when proper treatment for the first few hours would have saved them?

The treatment of shock depends to a great extent upon the degree thereof. Mild shock is usually overcome by hot external applications, but in the more severe cases more must be done. One of the best stimulants for these cases is an enema of strong hot black coffee, followed at intervals of three to four hours by that of hot salt solution also by the rectum, particularly if much blood has been lost. The coffee may be repeated one or more times, and may be combined with brandy or whiskey. Hypodermics of camphorated oil in some cases are very useful, particularly in nervous cases. Strychnia and nitro-glycerine should be given freely hypodermically. Shock is frequently prevented by operating in a room heated to the temperature of 85 to 90 degrees, F., and by leaving the abdomen full of hot salt solution.

Immediately after the patient has recovered from the immediate shock and effects of the anesthesia, begin giving a cathartic, particularly if there has been much handling of intestines or if there is a peritonitis present.

No one who has ever witnessed the easy convalescence and the freedom from the pain and discomfort which always accompanied the old method of not moving the bowels until the third or fourth day, that you get when the patient has one or more evacuations during the first twenty-four hours sub-

sequent to the operation, would ever omit the early use of calomel or salines or both. I have had several times opportunity to operate upon patients with appendicitis, in which the family physician had already given calomel for several hours preceeding the consultation, and in which cases four or five one drachm doses of magnesia sulphate given hourly, five hours after the operation, produced free catharsis. No morphia was ever required, nausea and distension were never present, and convalescence was an easy matter.

I prefer giving five grains of calomel three or four hours after the operation, followed in four hours by drachm doses of salts. The salts do not aggravate the vomiting, but rather allay it, in some cases seeming actually to stop it, and it undoubtedly lessens materially the thirst consequent upon the anesthetic. All the water the patient gets is what she gets in taking the calomel and salts until the bowels move. If, however, they do not move after eight or nine doses of the salts have been given, use large rectal enemata. They accomplish good in relieving the patient of a certain amount of gas, even if they do not at first cause the bowels to start moving.

It is in my experience very rare that relief from gaseous distension is obtained by the use of the rectal tube when the distension is great. The sigmoid is pressed into the upper rectum, forming a valve, and it is very difficult to pass a tube through this portion. I have tried it through a rectal speculum, and have seen it tried by others without success. Peristalsis is what we want, and we must obtain it from above. The enemas, with glycerine, salts, or any other medicines desired, are serviceable by the irritation caused by the presence of a foreign body in the rectum, and I am tempted to think that flow of gas through the tube inserted is often from the same cause. I have seen the tube used and gas and fecal matter escape, when the finger in the rectum would discover the tube coiled up in the bowel and not reaching above the valve spoken of before as being formed by the sigmoid forced into the rectum. Mechanical dilation of the rectum with the speculum or proctoscope, is sometimes of service by causing irritation and stimulating peristalsis, or in extreme cases the postural treatment, as suggested by Kelly. Anesthetize the patient and place her in the knee and chest position, and with a proctoscope dilate the rectum. But, as I say, it is not only the large intestine that is distended, but also the small, and from the pressure exerted by it upon the sigmoid and colon, the anatomical relations are so distorted that medication or mechanical interference from below is not of much service. Morphia is the most abused drug that we have in the after treatment of these cases. There are very few cases which cannot get along without morphia by the patients using self control and by having a nurse who will control the patient, particularly if the bowels can be moved within twenty-four hours. I do not think that all cases can do without it, and I would not withhold it from one who was actually suffering from the want and need of it, but I do think that in the majority of cases the actual amount of suffering is increased by giving it even in small doses. The constipating effect makes it hard to move the bowels, and the pressure from them adds to the pain otherwise felt,

and so the morphia must be repeated. I think that by giving cathartics or salines the use of the morphia might be obviated. One of the hardest parts of the after treatment of these cases is the fight one has to make with the family physician to prevent him from using morphia, with good intentions undoubtedly.

For the relief of pain, chloral per rectum for the first two or three days is probably the best drug. Occasionally I have used it by the mouth when there was but little nausea, with very happy effect. Codeine hypodermically I also use. It is not so constipating as morphia and at times acts like a charm.

As a rule vomiting is lessened and in some cases stops entirely when the salts are given. If very obstinate, large draughts of hot water, or washing out the stomach will usually allay it. When principally nervous, as it is in patients who are more or less hysterical, I frequently use a prescription composed of menthol two grains, cocaine two grains, alcohol one drachm and water to make two ounces. A teaspoonful of this to be given every hour if necessary. This is a most excellent remedy in any nausea, as in the vomiting of alcoholism, etc.

A very unpleasant complication is a frequent rise of temperature every day or two without any apparent cause. This is often due to intestinal disturbances and toxemia, from imperfect digestion. If possible the patient should be kept upon a milk and limewater diet, or at least a liquid diet for at least five or six days. In several patients I have seen even milk itself cause a rise of temperature with coating of the tongue, and in which grum, grumose or some other starchy food only was tolerated. These cases are sometimes very worrying, the operator imagining all kinds of infections, but a free catharsis drops the temperature to normal. By finding out the idiosyncrasies of each patient and being governed thereby, and keeping the bowels moving twice a day, and giving frequent large hot enemata these disturbances will not occur.

When the patient is doing well I do not remove the sutures until the ninth or tenth day, unless for some specific reason. I think union is better, the sutures supporting the tissues materially. The tendency is towards still further increasing the length of time they should be left in. I think hernia would occur less rarely if they were left in even as long as a month. If the operation is an aseptic one they can do no harm. I have seen several incisions gape when the sutures were taken out early and infection occur in the line of incision, which probably would not have occurred if they had been left in a longer time.

While hardly pertaining to the after treatment, I wish to speak of the prevention of stitch abscess. They are caused, not by infected suture material but by the want of proper disinfection of the skin before the operation. This is shown by the fact that in sections where the suturing is through and through, an abscess may show itself in the skin and subcutaneous tissue and yet the peritoneum is not infected. If it were due to the suture material we would most assuredly have a peritoneal infection also.

Attempts should be made to sterilize the skin for as long a time as possible before the operation, by scrubbing with green soap, the use of alcohol, using green soap poultices and bichloride towels. Even a few hours under a green soap poultice will render, in part, the skin free from germs. I think another source of local skin infection is the tendency many family physicians have of looking under the dressings every few hours to see "how the wound looks," or possibly changing the dressing every day as they were taught in school in the days of laudable pus. The bulky dressings are put on in part to prevent infection and growth of bacteria in the incision and suture punctures, and the frequent raising of these dressing by those interested no doubt in the patient's welfare, but not thoroughly informed as to surgery, is very injudicious to say the least. If the cotton stopper of a sterile test tube is removed twice a day for several days, the medium contained therein is almost sure to become infected unless the greatest care is taken, not necessarily, however, with pathogenic organisms. We have on the skin numerous bacteria, particularly the epidermic bacillus of Welch, and the moving of the dressings destroys the scab, or nature's protection of the incision and punctures, and we make frequent inoculations from the neighboring skin.

The Surgical Treatment of Uterine Fibroids.

By H. A. ROYSTER, A. B., M. D., Raleigh, N. C.

One of the Visiting Staff, Rex Hospital ; Surgeon-in-Charge, St. Agnes Hospital.

WHATEVER the advocates of other therapeutic measures may claim, it is, I think, clearly established that the proper treatment of fibroid tumors of the uterus is their removal by surgical means. It is true that submucous growths may be extruded through other agencies or that small subperitoneal nodules may disappear spontaneously ; but these occurrences are not the rule. Ergot and electricity stand first in the list of palliative remedies, and must be regarded only as such. At times they do positive harm when continued over a considerable period.

I operated on one case to which the electric current had been applied long and persistently by a skilled specialist, without benefit, and the adhesions were the most troublesome I ever encountered.

It is generally considered that uterine fibromas gradually shrink after the menopause and cease to annoy the sufferers. Those who indulge this hope will often be disappointed. In many cases the growth takes on more activity at the climacteric, and in a young woman it is the greatest folly for her to think of waiting for this period while the pain, hemorrhage and other distressing symptoms continue.

Just as in other surgical conditions, the question of "when to operate" in uterine fibroids is important. The very small neoplasms which are discovered accidentally, may be allowed to remain under watchful care. Those patients

who come into the surgeon's hands for relief can without hesitation usually be advised to be operated upon, for the condition then has made itself felt. In general, a good rule is to counsel operation on every tumor that gives symptoms, which expression includes the recognition of the growth by the patient. Whether the classic symptoms are present or not, if the tumor is large enough to be noticed by the woman, it should be removed. Pressure symptoms alone are a sufficient indication, especially when it is remembered that fibroids tend to increase in size slowly but surely. Patients may be so exsanguinated or weakened from various causes that the operation may be contraindicated temporarily or permanently.

The choice of operative methods must be varied to suit the individual case. Hysterectomy is the operation most generally performed, for it is applicable to every kind of fibroid tumor and forever removes the offending organ. Whether the entire womb is taken away (panhysterectomy) or the cervix left behind (supra-vaginal hysterectomy) depends upon the nature of the tumor and the fancy of the operator. Personally, I have preferred the supra-vaginal amputation, with accurate stitching of the peritoneal flaps over the stump so as to leave no raw surface in the pelvis. I do not at all subscribe to the theory advanced by opponents of this operation, that the cervix remaining invites the development of carcinoma. Women who have fibroids are usually sterile—the very opposite condition, as a rule, from those who have cancer of the uterus. Myomectomy, or removal of a fibroid tumor without taking away the uterus, is always to be practiced whenever feasible.

Single subserous tumors with a pedicle and single interstitial growths are most frequently suitable for this operation. H. A. Kelly has enthusiastically advocated myomectomy on the ground of conservatism in cases where other surgeons would undoubtedly have performed hysterectomy. He has enucleated as many as twelve myomata from a single uterus, each by a separate incision. Penrose regards myomectomy as a dangerous operation, not so safe as hysterectomy, and considers the cases unusual in which myomectomy is to be recommended. Very recently S. C. Gordon (*Philadelphia Medical Journal*, August 19, 1899) has taken issue with Kelly, analyzing the latter's statistics, and concludes that myomectomy has a mortality as large as hysterectomy, that hysterectomy is often demanded subsequently in women who have had myomectomy performed, that only in comparatively young women should myomectomy be done, and that hysterectomy is by far more conservative of health than myomectomy.

The published report of my first three years' surgical work, ending August, 1898, included three celiotomies for fibroma of the uterus, with two deaths. Since that time I have operated with successful results upon four other cases, making a total of seven. To complete the record, a synopsis of these four cases is given. All the patients were colored women :

1. Celestia Y., cook, age 29, single. Menses always profuse, but regular—only one "flooding spell." Suffers constantly with pain in abdomen, and is unable to do her work. Has noticed a mass in abdominal cavity for

several months. A large fibroid of the uterus, interstitial and subserous. *Operation:* Supra-vaginal hysterectomy, Sept. 29, '98. Six-inch abdominal incision. Omental adhesions separated and tied. Adhesions to transverse and descending colon and to sigmoid peeled off—oozing moderate. Right ovarian and uterine arteries tied, cervix grasped with clamps and cut across to opposite side where left uterine and ovarian arteries were ligated. Bladder separated, posterior flap of peritoneum dissected off and tumor removed. Cervical canal closed and peritoneum stitched over stump with catgut. Slight raw surface on sigmoid could not be completely covered. Usual toilet of peritoneum. No signs of shock and no bad symptoms. The woman is perfectly well.

2. Mary B., teacher, age 30, single. Referred by Dr. J. A. Lightner. Usually healthy. Menses began at 16 years, and were normal up to two years ago, when they became profuse and painful, gradually getting worse. A week before admission had a severe hemorrhage. Palpitation of heart, constipation, anemia. No appreciable enlargement of abdomen to her knowledge. Hard nodular tumor manifest on abdominal palpation; diagnosis confirmed by the vaginal touch. *Operation:* Supra-vaginal hysterectomy, Nov. 7, '98. Six-inch incision. No adhesions, tumor easily delivered. Anterior and posterior peritoneal flaps dissected off. Left ovarian and uterine arteries tied separately, cervix amputated and vessels on right side tied from below upward as before. Peritoneum brought together perfectly over stump with running catgut. No raw surface exposed. Very little blood lost. No weakness, no thirst, and extremely little pain after operation. Patient returned to the schoolroom on Jan. 1st, '99, and has been attending to her duties regularly.

3. Caroline N., house-wife, age about 36, married nine years, no children. Generally robust. Menses have always been regular, but very free the last two periods. Abdomen enlarged; she thinks, "something is growing in there." Pressure symptoms marked. On her shoulder were some "knots," which came three months before. Had one on knee, which ulcerated a year ago and healed under treatment. Examination showed these nodules also over the lower abdomen in median line. They appeared to be gummata, and after careful inquiry a syphilitic history was definitely made out. A fibroid tumor of the uterus was found by examining the abdomen. She was put on large increasing doses of potassium iodide, going up above 400 grains per day, and occasional inunctions of mercurial ointment over the nodular growths. These promptly disappeared. She was then ready for *operation:* Supra-vaginal hysterectomy, Feb. 22, '99. Seven-inch incision. Intestines adherent to anterior abdominal wall. Bands of fibrous adhesions to tumor, which was an interstitial fibroid, tightly fixed and growing between layers of broad ligament. Right ovary and tube atrophied; left ovary large as a lemon, hematomatous and cystic; tube thickened. All these removed. Arteries secured as before, but right uterine not severed—tumor shelled out of its bed on that side above the artery. Peritoneum closed over stump with fine silk sutures—no reliable catgut at hand. This patient recovered nicely and is still in perfect health.

4. Laura C., house-wife, age 42. Twice married, no children; menses always regular and painless. They ceased three years ago. For several years her abdomen has been enlarged. Since menopause the enlargement has seemed to increase and she has had more trouble from pressure. No pain, no hemorrhages, no constipation. General health good. Examination revealed a large sub-peritoneal myoma, extending above umbilicus, freely

movable. *Operation*: Myomectomy, August 4, '99. Seven-inch incision. No adhesions. Tumor readily eventrated after incision was prolonged. Pedicle one inch in diameter, growing from fundus, double-ligatured with strong silk and cut off as close as possible to uterus. Weight of tumor 12 pounds. Patient has just returned to her home in fine condition.

323 W. Morgan St.

Shall a Woman With Posterior Dislocation of the Uterus be Doomed to Wear a Pessary for the Remainder of Her Existence ?

By AUGUSTIN H. GOELET, M. D.

Professor of Gynecology in the New York School of Clinical Medicine, Etc.

POSTERIOR dislocations of the uterus that have become chronic are seldom or never cured without some operative procedure to afford permanent support. This is particularly true of retroflexions that are not recent, chiefly because the organic change that has taken place in the wall of the organ at the point of flexion, makes it more or less permanent, and it is often impossible to maintain a normal anterior position of the uterus by any form of artificial support in the vagina. Retroversions, however, that owe their existence to increased weight of the uterus, due to endometritis and metritis are sometimes curable with the aid of the pessary if the metritis and endometritis are overcome by appropriate treatment, because the cause of the malposition may thus be removed and because the pessary can, in such cases, more readily support the organ in a normal anterior position. But a cure is not always possible and frequently the pessary must be worn constantly to keep the uterus in anything like a normal position. This is true, because the sustaining ligaments have lost their tonicity and are incapable of retraction. In such cases the patient must either wear the pessary continually or submit to an operation to furnish permanent support.

Recent displacements where the tonicity of the sustaining ligaments has not been lost are curable without operation, but the support afforded by a properly adjusted pessary in the vagina is always necessary to prevent recurrence of the displacement and avoid strain upon the ligaments while undergoing retraction.

It is folly to replace a dislocated uterus and expect it to remain so unaided. Yet this is done by men who attempt gynecology without understanding it. I have known anæsthesia to be employed to effect replacement, the patient being deluded in the belief that the operation (?) that was done cured the displacement. Being naturally averse to local treatment she has contented herself by attributing subsequent symptoms to weakness, and a recurrence of the displacement is not discovered until too late to be remedied without an operation to afford permanent support.

It is likewise a grave error to insert a pessary and expect it to effect a cure without overcoming the maintaining cause of the displacement. Such practice is the outgrowth partly of ignorance of a definite understanding of

the subject, partly because some men oppose operative interference in what they are pleased to regard a very simple condition and partly because the operations devised for the cure of these displacements have not heretofore proven entirely satisfactory or successful. Consequently patients have been doomed to wear a pessary continually, or else the malposition has been left uncorrected until, some inflammatory process supervening, the uterus has become permanently fixed in its unnatural position, requiring a more serious operation than would have been necessary had the case received proper attention before fixation occurred.

It is most unfortunate that there is not more uniformity of opinion upon the proper course to be pursued when these displacements are discovered. Scores of women in consequence go through life suffering unnecessarily, either because of a pessary, for the need of a pessary, or for the need of an operation that will do what the pessary cannot.

Though sometimes serviceable and even necessary, the pessary should never be regarded as anything more than an auxilliary, a mere temporary, and often very inefficient splint. It should never be regarded as a means of cure unaided. At best, it is only a makeshift, and it is unnatural, unclean, often uncomfortable, and sometimes positively injurious. It is only permissible when its principle and its adaptation is clearly understood. It is a serious error to permit a patient with a pessary, even if it is properly adjusted, to pass from observation, or to permit her to wear it indefinitely or continually, or lead her to believe that it will effect a cure.

The utility of shortening the round ligaments in those cases where their tonicity is entirely lost and they are no longer capable of retraction, has long since been demonstrated, and is now an accepted fact. The many objectionable features of the original Alexander operation for this purpose, which was so unsatisfactory, have been overcome by modification and perfected operative technique, and we have to-day an operation easy of execution and uniformly satisfactory in its result. The risk incurred is so trifling that there is no longer any justification for ever temporizing in these cases, and no woman should be permitted to pass her existence with a pessary in the vagina because the uterus will not remain in proper position without its support.

The chief points of advantage of the perfected operation for shortening the round ligaments as devised by Kellog, are :

1. The operation can be quickly executed and is easy of accomplishment.
2. Only an inch incision through the integument is required. This is made over the internal ring, and only a quarter of an inch incision is made in the muscular roof of the canal through which the ligament is reached and withdrawn.
3. The inguinal canal is not laid open, and the operation leaves no weakness in the abdominal wall and no liability to hernia.
4. The ligaments can always be found and are strong enough at this point to permit traction upon the uterus and sustain it.

5. The ligaments are not cut or detached from their insertion.
6. The method of attaching the redundant loop of the ligament by burying it in the muscular wall of the abdomen, provides ample nutrition, the attachment is firm and it does not give way.
7. The subsequent traction by the weight of the uterus it sustains is not in a straight line from the point of fresh attachment of the ligament but at a right-angle as it passes through the muscular roof of the inguinal canal. Hence the resisting power of the fresh attachment is greatly increased. This is supplemented by folding the loop of the ligament across the top of the muscle at the bottom of the wound.
8. By avoiding the severing of the small blood vessels of the abdominal wall, which is poorly supplied with nutrient vessels in this region, the field of operation is not obstructed by blood; sponging and handling of the tissues is avoided, sloughing is obviated and primary union is always secured.
9. Only two sutures are required, which serve the double purpose of securing the ligament and closing the wound.
10. No disfiguring scar remains.

In brief the technique of the operation is as follows, viz: An incision is made through the integument only an inch in length, at a point midway between the anterior superior spine of the ilium and the spine of the pubis, about an inch above Poupart's ligament. By dry dissection with the aid of blunt hooks and retractors, the vessels are pushed aside and the external oblique muscle is exposed. The lower border of the incision is retracted sufficiently to expose the upper border of Poupart's ligament, and with a narrow bladed scalpel or bistoury the roof of the inguinal canal is penetrated in the direction of the fibres of the muscles about two lines above Poupart's ligament. Through this incision the round ligament is caught with a blunt hook and withdrawn. As the ligament is drawn through the internal abdominal ring the accompanying pouch of peritoneum is stripped back and finally opened all around to permit the ligament to be drawn freely through the ring. Sufficient slack is taken up in the ligament to draw the fundus of the uterus well forward against the bladder. The first suture is now inserted, through the integument and underlying fat, then through the margins of the incision in the muscular roof of the inguinal canal and the thicker portion of the ligament loop as it passes through this incision, then out through the integument below. This suture secures the ligament and prevents retraction into the abdomen. It is not necessary and not best to tie this until the second suture has been introduced. The material used is silk-worm gut for both sutures, and they are introduced with a stout, long quarter-curved needle.

A passage is now made for the loop of the ligament under and through the external oblique muscle above the line of the inguinal canal with a right angled aneurism needle carrying a loop of stout silk ligature, with the aid of which the loop of the ligament is drawn through. The redundant loop of the ligament is now folded across the bottom of the incision at right-angle to the inguinal canal and the second suture is inserted. This penetrates the

integument and underlying fat above, passes through the loop of the ligament as it emerges from under the external oblique muscle above, then passes through both margins of the incision in the muscular roof of the inguinal canal at the lower angle, then through the end of the loop as folded across the base of the wound and out through the integument below. The wound is then flushed with normal salt solution.

If the course of these two sutures can be comprehended from this description it will be seen that when they are tied they effectually secure the ligament loop, bring together firmly the margins of the opening in the muscular wall of the inguinal canal and, at the same time, close the incision in the integument.

The operation can be accomplished without the loss of a drop of blood, and can be completed on both sides in from fifteen to twenty minutes from start to finish.

The success of the operation necessarily depends largely upon the experience and dexterity of the operator, and consequently its adaptation to appropriate cases, as well as to careful preparatory treatment.

The scope of this article does not embrace posterior dislocations that have become permanently fixed by adhesions or are complicated by adherent or diseased adnexa. Such cases are to be dealt with through an abdominal incision. The adhesions being separated and hopelessly diseased structures removed, the uterus is attached to the anterior abdominal wall by the method recommended by Howard Kelly. A pessary should never be used in these cases prior to operation and it is never needed after.

Appendicitis.—Personal Experiences in Randolph—Fourteen Operations on Twelve Persons—And Without a Death.

By J. W. LONG, M. D., Salisbury, N. C.

Emeritus Professor of Gynecology and Pediatrics in the Medical College of Virginia.

THE experiences herein stated embrace my first operations for appendicitis, as well as some of the more recent ones. The first cases date back to the time when the subject of appendicitis as now understood was but imperfectly comprehended by even our best surgeons. Besides, the technique of abdominal surgery had not been worked out (I use this term advisedly) to the high state of perfection which is practised at this time by all up-to-date surgeons.

Public Sentiment Opposed to Surgery.—Not only were these things true, but at the time mentioned, from 1885 to 1890, surgery was not popular in Randolph, which is in many respects the banner county of the State. Indeed, so averse was public sentiment to capital operations that the doctor who would dare to take a knife and cut anybody open was considered but little better than a red-handed murderer, going about seeking whom he might slay, and utterly regardless of human life. Of course I speak now of the

general sentiment only, to which there were numerous and conspicuous exceptions.

Good Results Make Surgery Easy.—I am happy to add that this feeling of opposition to surgery has to a great extent died out, and instead there exists among the people a wholesome regard for the benefits to be derived from surgery. As nothing succeeds like success, I think it might be safely added that this reversion of public sentiment is due largely to the triumphs of surgery, as shown in the cases contained in this paper. Even public sentiment, the most formidable thing a man ever encountered, quails and gives back in the face of results.

I trust I may be pardoned for repeating what the lamented Dr. R. L. Payne said to me while on a visit to me in Richmond just prior to his death. Speaking of my early work, he said, "Long, surgery is a great deal easier to do in Randolph than it was before you went there." It was one of the most complimentary things ever said to me, and yet I do not flatter myself that its truth was because of any special personal merit on my part, but simply that it was another way of expressing the self-evident truth that *good surgery will bear good fruit*. I was merely an humble instrument, a kind of pioneer as it were, trying to save valuable lives and at the same time endeavoring to inculcate correct ideas concerning surgical pathology and a due appreciation of the immense advantages to be gained from modern surgery. Scores of other men throughout the State are doing the same thing.

Abdominal Surgery in Private Practice.—While it must be conceded that the ideal place to do abdominal surgery is in a well-appointed hospital, these cases demonstrate that it may be successfully done in the homes of the patients. In only two cases did I even have a trained nurse, and I consider a trained nurse one of the most indispensable aids to a surgical staff.

Some of these operations were done in the homes of the wealthy, where every possible convenience could be had, while others were done in the humblest homes. But country surgeons, to which class the writer claims the honor of belonging, have to make many a makeshift. I have even done a Porro operation in a negro cabin, without the patient having so much as a rise of pulse afterward. Can the hospital surgeon do any better? Truth is, that the principles of asepsis, properly applied, will give good results anywhere; and, other things being equal, the best surgeon is he who knows how to adapt himself to circumstances.

Age.—The ages of the patients in the appended cases show a wide range touching near the extremes of life; the youngest being three years and eight months, the oldest seventy-two years. The first patient I ever operated on for appendicitis was seven years old. However, the majority of the patients (*infra*) were young adults, from eighteen to thirty-five years old.

Severity.—I would not magnify the importance of this paper by declaring that the cases herein reported were all the worst kind of cases, for they were not. I mean pathologically. In every case the patient's life was in great jeopardy, and the operation demonstrated sufficient and urgent

reasons for operating. Indeed it is hard to conceive how any one can look at the puddle of stinking, fetid pus, the sloughing, gangrenous appendix, the inflamed adherent intestines, and in the severer class of cases the general septic suppurating peritonitis, with its resulting blood poisoning—and question the propriety, even the absolute necessity, of an operation to save the life of the patient—and that is just what an operation for acute appendicitis is—a *life-saving measure!*

Operation.—There is perhaps no procedure in surgery that calls for such a varied amount of skill, knowledge, experience and judgment as the operation for appendicitis and its complications. Indeed, it varies from the simple opening of an abscess to an intestinal resection. I have run the scale and know whereof I speak; and am sure every abdominal surgeon will agree with me in the above assertion.

Drainage.—In operating for chronic or recurrent appendicitis I close without drainage, but in acute cases, such as these, drainage should always be employed, for to *drain away the septic matter* is the real essence of the operation.

Anæsthesia.—General anæsthesia was employed in every case save one, and that in the oldest patient of the group (Case XI). She was in extremis. In her seventy-second year, with marked mitral lesion, prostrated by the recent loss of her husband, and for two weeks struggling in the throes of peritonitis, she was decidedly an unfavorable subject for general anæsthesia. I declined to operate except under local anæsthesia. The dear old lady displayed wonderful fortitude, and stood the operation splendidly.

Complications.—A certain number of these cases developed more or less serious complications. Two had empyæma, one had a rupture into the bladder, two had metastatic infection of the calf of the left leg, while one had a rupture through the rectum. A careful study of the history of the cases, however, will show that every case that developed a complication of any kind was operated on late; and certainly this is a strong argument in favor of early operation.

Results.—That all of these patients save one are alive to-day, speaks for itself, as far as results go. The only patient among the twelve not now living was the man Frank Hayes (Case VII). This man had had not less than *thirty-five* attacks and was in great extremis when operated on. The appendix was greatly enlarged, was mortifying in two or three places, and contained a deposit of lime salts about the size of and not unlike a peach-seed. The sepsis was profound, while the peritonitis was rapidly spreading. The patient made a good recovery from the operation, and in the usual time was going about.

Some months later it was noticed that there was an enlargement about the former site of the appendix. *Eight months and a half after the operation for appendicitis*, his family physician, Dr. W. A. Fox, asked me to operate with the view of removing this mass. The patient was emaciated, anæmic, and far from his usual health, but it was hoped that to remove the mass would restore him

fully to health. A small sinus persisted at one angle of the former incision. Under ether a median incision was made and the limitations of the tumor outlined. It was densely adherent anteriorly, posteriorly, and externally to the abdominal walls, and internally, to coils of intestines. A second incision was made directly over the tumor and the mass carefully dissected from attachments. The bleeding was profuse and unusually difficult to control. Special care was taken to guard the head of the colon, but about the time the mass was enucleated, the patient retched rather violently and a rent two inches long occurred in the caecum. This was closed at once by Lambert sutures. The patient did not react well from the anæsthetic, was more or less delirious, and the pulse frequent and feeble. The next day, he seemed slightly better, the wound was dressed and found in good condition, and the kidneys were excreting a fair amount of urine; but towards evening he grew worse, and that night (the second night after the operation) he passed away.

The occurrence of a growth after an operation for appendicitis is unique in my experience. I regret now that I did not preserve a piece of the growth in this case for microscopical examination. The rapid development, the great vascularity, the friability of the implicated gut, the widespread adhesions—all point to malignancy, probably sarcoma.

With these facts before him, would any fair-minded person say that this man died from the operation for appendicitis?

ASSISTANTS.

"No man liveth to himself," nor can any surgeon, no matter how skillful, operate without reliable and intelligent assistants. Therefore I wish to give due credit for the success attending the following operations to Dr. W. A. Woollen, Dr. D. A. Stanton, Dr. J. O. Walker, Dr. W. A. Fox, Dr. T. T. Ferree, and others who lent a helping hand.

Report of cases.—In reporting these cases I use the full name of the patient in every instance, where I can recall the name. I do this for certain personal reasons and that the cases may be easily identified.

CASE I.—Time, May, 1891, first attack, Frank Prevo's boy, age 7 years, sick eight or nine days, began with colic and soreness in bowels, right thigh flexed, has painful urination, small tender mass at McBurney's point. Lateral incision, evacuated several ounces of pus, adhesions well-formed and not disturbed, appendix not seen, drainage, recovery prompt and good.

CASE II.—Same boy, second attack, time, 1893; symptoms about the same as before, operation about the fourth day, recovery uneventful.

CASE III.—Ferdie Ingold, age 17 years; physician, Dr. W. A. Fox; time, Sept., 1891, first attack, was seized twelve hours after eating heartily of scuppernong grapes, symptoms and signs classical, operation on the eighth day, a pint of pus evacuated, the appendix could not be found, drainage, patient did well for several days, when a secondary abscess formed, and on the seventh day after operation broke into the rectum. On the next day it was deemed advisable to again open the abdomen.

CASE IV.—Same as Case III; time, eighth day after first operation; free incision, adhesions all broken down, entire abdomen carefully washed out, drainage, perfect recovery.

With my present experience I would probably do a more complete operation on both these patients and thereby avoid the necessity of a second operation.

CASE V.—Time, April, 1892; first attack; David Laughlin; physician, Dr. W. A. Fox; age, 46; operation on fourteenth day, large abscess behind the cæcum, drainage. Later, pus broke into the bladder, and metastatic infection occurred in the left calf. Perfect recovery.

CASE VI.—Miss Lizzie Gregson; physician, Dr. W. A. Woollen; time, July, 1892; former attack in June. July 12th, ate peanuts, next day she had colic, on the sixth day of the attack I operated; three gills of pus were evacuated, and the gangrenous appendix containing an apple seed and two enterolitis removed. The adhesions were very fragile and unavoidably broken down, the abdomen was thoroughly flushed out, and drainage used. The recovery was all that could be desired.

CASE VII.—Frank Hayes, age about 30 years; physician, Dr. W. A. Fox; previous attacks thirty-five; time, June, 1894; operation late in the attack, appendix greatly enlarged, with gangrenous spots in walls and containing lime deposit as large as a peach seed, rapidly spreading peritonitis, sepsis. Appendix removed, parts irrigated and gauze drainage used. There was considerable difficulty getting the bowels moved, after which the convalescence was uninterrupted.

CASE VIII.—J. E. Woollen, aged about 35 years; attending physician, Dr. W. A. Woollen; time, spring of 1895; second attack. operation about the tenth day; appendix gangrenous, but owing to adhesions was not removed. Convalescence was tedious, being prolonged by sepsis and a metastatic infection of the left calf, but in the end was perfect.

CASE IX.—E. A. Wiles, age about 27 years; physician, Dr. J. O. Walker; time, June, 1897; first attack. Operation on seventeenth day. Appendix contained pus, and one or two spots were ready to slough. Recovery prompt and perfect.

CASE X.—Sid Tate, age about 35 years, physician, Dr. W. A. Woollen; first attack; operation sometime during third week; extensive suppuration. Convalescence interrupted by empyæma, recovery perfect.

CASE XI.—Mrs. McDaniel, age 72 years; physician, Dr. T. T. Ferree; time, fall 1897; first attack; sick two weeks. Mitral regurgitations. Operation done under cocaine; extensive peritonitis; convalescence interrupted by empyæma. Recovery perfect.

CASE XII.—Negro man living with Sheriff Redding; age about 30 years; physician, Dr. T. T. Ferree; first attack; time, spring, 1898; sick nearly a week; appendix surrounded by extensive adhesions. Recovery very speedy.

CASE XIII.—Samuel Walker, age about 16 years; physician and brother, Dr. J. O. Walker; time, August, 1898; first attack; sick nearly a week; appen-

dix buried in a mass of adherent bowel, threatening spots of sloughing present. Recovery perfect.

CASE XIV.—Stanhope Bryant, Jr., age 3 years 8 months; physician, Dr. W. A. Woollen time, August, 1899; sick eighteen days with mild continued fever which dates from eating whortleberries; appendicitis symptoms present for three or four days; appendix found perforated and surrounded by coils of inflamed intestines. Recovery perfect.

SELECTED PAPER.

Shall We Operate in Every Case of Appendicitis ?*

By VIRGINIUS HARRISON, A. M., M. D., Richmond, Va.

Lecturer on the Practice of Surgery, University College of Medicine.

We find in nearly every journal something on the subject of appendicitis. This is because there is no subject of more importance to us as doctors, and it is the so-called mild cases of appendicitis about which our profession differs more often in regard to the treatment. This will continue until our methods of diagnosis are perfected in regard to the severity of the conditions existing within the abdomen, enabling us to lay down exact rules for the varying cases.

Those who favor the medical or expectant treatment use various arguments for substantiating their belief, the chief of which is that the patient may recover if not operated on; if the patient gets worse rather than better within a day or two, then operate. Some advise us to wait until the attack has been recovered from, and operate in the interim. Taken as a rule, these statements may have had and did deserve some consideration a few years ago, when we had not the experience of to-day, which has so clearly demonstrated the advantage attained by an early operation.

Many have been the cases treated expectantly, and apparently with success, for the pain had subsided, the temperature and pulse had become either normal or nearly so, the rigidity of the abdominal muscles had relaxed, when suddenly symptoms of serious import arose, indicating suppurative peritonitis, or the rupture of a local abscess. Some cases are so mild, apparently, that after a few days' treatment we may doubt our diagnosis and render another, and not until a post-mortem has revealed the true condition of affairs do we appreciate how insidious the symptoms of appendicitis can be. A case of this kind has, I am told, occurred in surgical Richmond within the past two months.

Again, I have seen cases operated upon in which there was some doubt as to the existence of any serious lesion of the appendix, yet the operation taught us we had not operated too early. I recall a case in point; a young man had recurrent attacks so frequently that I advised the removal of the appendix. These attacks never kept him in bed more than one day. He never had a temperature over 100° F., nor was his pulse more than 80.

* Read before the Richmond Academy of Medicine and Surgery, August 22, 1899.

There was always some little rigidity, though very slight. Before the last attack he skated until 11 o'clock, p. m., and was taken the next morning at four o'clock with severe pain, which was promptly relieved by the action of a dose of Epsom salts. From these symptoms this surely could be classed as a mild case. I operated at one o'clock, and was much surprised to find a localized collection of pus ready to rupture and be followed by suppurative peritonitis.

I have seen all the conditions I have spoken of and many more illustrated many times over on the operating table. Nearly every operation for appendicitis impresses the fact upon me that early operation gives the patient the best chance of recovery. I honestly believe we will lose nothing by operating on every case as soon as we are sure of our diagnosis, provided there are not other diseased conditions that must engage our consideration. To use the words of Dr. Deaver: "Until the good Lord makes the belly wall transparent, it will be impossible to do other than guess as to the progress the appendiceal inflammation is making."

A few surgeons, and among them some high authorities, adhere to "the middle of the road" theory, advising that some patients be operated upon and others not; yet there are many bright luminaries in the surgical world, such as Murphy, Deaver, Treeves and others, who freely admit that they cannot tell what course any case of appendicitis will take, and advise the removal of the appendix; while the mortality should not be over 2 per cent. I envy the man who has the courage to act upon his honest convictions, provided these convictions have been made after a studious investigation of the subject.

When does the time-limit of a mild case end? or, in other words, how long should we wait before operating in case of mild symptoms? The time ends, in my opinion, when we have diagnosed the case as appendicitis. The damage is often done early in attack. The two cases already referred to teach this. I could give you the history of a good many cases to demonstrate this fact and the correctness of my opinion; but, instead, shall quote the statistics of Dr. Will J. Means of Columbus, as given at the June meeting of the American Medical Association: * * * "In nine cases operated on in the first twenty-four hours after the attack, the appendix was ruptured in five and coprolites were escaping through the openings. In the four other cases the appendix was inflamed, the mucosa showed pathologic changes, and the surrounding tissues were more or less involved. In seventeen cases operated on within forty-eight hours, the appendix was gangrenous in ten. In twenty-three cases operated on in seventy-two hours, twenty of these were gangrenous in some portion. In twenty-five cases operated on after the third day, there were abscesses in twenty. What do we learn from these statistics? Surely, it is the lesson that the earlier we operate the less grave will be the conditions with which we will have to deal, and therefore the lowest rate of mortality will be had in the early operations." If the statistics given by Dr. Means were unique we might stop and meditate as to their value, but when we find that his experience coincides with the experience of nearly

all of those who operate daily, and who have the opportunity of verifying their statements over and over again, we must accept their statements as true, and act accordingly, until some light hitherto withheld has illuminated the abdomen and directed us correctly as to which cases will go on to complete resolution and which will hasten on from bad to worse with a fatal termination.

While we are still in the dark as to the ultimate outcome of any case, does it not seem more reasonable and better to open a few bellies in one hundred cases that do not require it, and have all or practically all, of the cases to get well, than to wait until the appendix has become perforated, or gangrenous, and involving all the surrounding tissues? This latter condition will entail a far more serious operation and be attended with a corresponding higher rate of mortality.

Doubtless patients have had attacks of appendicitis, recovered and never had a return of the attack. We all know that this is the exception, and not the rule. If these cases were labeled so that we could recognize them, there would be no diversity of opinion as to the treatment. As a rule, one attack is followed by another, sooner or later. We do not know that the attack supposed to have been the primary attack was in reality the primary attack at all; the patient may have had several and have been treated for some other abdominal trouble. The symptoms are no criterion in determining the amount of damage done within the abdominal walls. I have seen a flat abdomen, a normal temperature and pulse accompanying pus in the abdomen.

I wish to speak briefly of two other classes of appendicitis, viz., the acute fulminating and those cases seen after the advent of suppurative peritonitis. No one will, I suppose, take issue with me when I say all cases of the acute fulminating variety should be operated upon immediately. Appendicitis has become such a common disease, that this class is usually diagnosed by the family by the time we are called. They have learned the necessity of an operation in the majority of instances. The old doctrine, "too late for the early operation and too early for the late operation" has no place here. As soon as the patient can be placed in suitable surroundings to be operated upon the more chance will there be of success. Even slight delay is fraught with great danger. An hour may be sufficient for this appendiceal inflammation to do irremedial damage and place the patient beyond the pale of successful surgery.

This brings me to the consideration of a class of cases that deserves a more careful consideration as to the needs of an operation. I refer to those seen after suppurative peritonitis has set in. What shall we do with them? If we do not open the abdomen, irrigate and drain the peritoneal cavity, we know that the patient is inevitably doomed. If we operate, the large majority of the patients will die, and surgery will suffer as a consequence. These are the cases that the surgeon who is working for good statistics will avoid if possible. Is this right? Some of these cases have been saved. This being true, should it not be our duty to lend them our aid? For they are entitled

to even the small chance of saving their lives if they desire it. The statistics of the surgeon, or the effect upon future surgery, amounts to nothing to them in comparison with their own lives. Again, by operating on these cases, we shall learn more of them, and may find a better method whereby we may be able to save a great many more than can be done by the present method.

In conclusion, I shall summarize by advising in all mild cases, when there are no complications of great moment, the use of "an ounce of prevention rather than a pound of cure," by operating just as soon as the diagnosis is complete. In the fulminating variety we all agree, I have no doubt, as to the advantage to be gained by the early operation. In those cases seen late, and in which suppurative peritonitis is present, without collapse, I think the patient is entitled to the very small chance given by the operation, after he has been fully advised as to the gravity of the situation.

The Pauper Inebriate.—Certain statistics of inebriety and crime are discussed by Dr. Mason, in *Alienist and Neurologist*, July, and after general consideration of the social and legal status of the habitual drunkard he takes up the special points as to the care and treatment of inebriates: 1. Pauper inebriates, he holds, should be recognized as the wards of the State, and their care and maintenance should be provided for. 2. They should be isolated, as a distinct class, as the insane and criminals are isolated. Neither the asylum nor the prison is the proper place for them. They should be sequestered by law for a long term, at least two or three years, and the directors of the institution should have the privilege of giving tickets of leave or parole, as in the insane asylums. The asylum or place of restraint should be a strictly remedial and reformatory institution, with large tracts of land and means for educating the inmates in various manual trades and occupations. The clerk or bookkeeper who has become an inebriate will find, as a rule, serious difficulty in regaining work, but if he has learned a trade comparatively few questions will be asked. The inmates should be graded and classed. Dr. Mason thinks that well-established State institutions for the care of such inebriates would greatly decrease the number of insane annually treated in the State institutions.

Alcohol as an Antidote for Carbolic Acid.—Occasional reports of carbolic acid poisoning, which appeared in recent issues of the current medical press remind us of the success achieved by Phelps in antidoting carbolic acid by the use of alcohol, says the *Med. Review*. He states that the hands may be washed with impunity in 95 per cent. carbolic acid by the use of alcohol. He has employed injections of pure carbolic acid in suppurating cavities and has then washed them out with alcohol. The procedure has not been accompanied by carbolic-acid intoxication. The method has been found to be very efficient in immediately sterilizing suppurating cavities, and many cases have been followed by a rapid absorption of the walls of the abscess and an obliteration of its cavity. The importance of the discovery in relation to accidents with carbolic acid cannot be over-estimated. The frequency of accidental poisoning with this drug has greatly increased of late years, and the accidental spilling of the contents of a bottle of strong carbolic acid over some portion of the body is by no means infrequent. The application of alcohol to these cases is said to furnish a perfect antidote. Carbolic acid, when swallowed, if followed at once by alcohol, is said to be immediately antidoted.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.
Editors and Proprietors.

W. H. WAKEFIELD, M. D.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.

J. HOWELL WAY, M. D., Waynesville, N. C.

J. ALLISON HODGES, M. D., Richmond, Va.

S. WESTRY BATTLE, M. D., Asheville, N. C.

GEO. G. THOMAS, M. D., Wilmington, N. C.

R. L. PAYNE, M. D., Norfolk, Va.

H. S. LOTT, M. D., Winston, N. C.

J. W. LONG, M. D., Salisbury, N. C.

H. A. ROYSTER, M. D., Raleigh, N. C.

ALBERT ANDERSON, M. D., Wilson, N. C.

J. P. MONROE, M. D., Davidson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

THE AFTER TREATMENT OF ABDOMINAL SECTION.

It is no doubt true in the majority of cases of abdominal section that the fate of the patient is decided when the last suture is placed in the abdominal wound—nevertheless the proportion of cases which are dependent upon the after-management for an increase of their chances of recovery, and for the avoidance of unpleasant sequelæ and complications, is sufficiently large to make this part of the treatment of decided interest to surgeons. The general rules which have been adopted as giving most satisfactory results are too well known to merit repetition here. Of the more pressing problems which are presented in the after-management of a celiotomy, the securing of an early and efficient action of the bowels is perhaps regarded as most important—certainly it is very significant from a prognostic standpoint. The question of whether or not to employ an anodyne for the relief of the pain, which is quite extreme in some cases during the first 24 hours, is also one which must appeal strongly to the surgeon. Since the necessity for a prompt evacuation of the intestinal canal has been recognized as a factor in the recovery of the case, the use of morphine at this stage has fallen into general disfavor, as tending to produce a parietic condition of the intestines and interfering with the action of the purgatives usually administered. There are circumstances, however, which render the ill effects of a moderate employment of opiates less to be dreaded than the exhaustion consequent upon long-continued suffering. Of the various substitutes for morphine, the use of chloral and codein by the rectum is most likely to prove effective. The temporary withdrawal of food and the subsequent use of only liquid nourishment for a stated period, together with as nearly quiescent state of the patient as it is

possible to secure, are generally looked upon as offering the most favorable opportunity for recovery of the patient. Dr. Emil Ries of Chicago, in a recent paper on this subject, proposes a radical departure from most of the above rules of treatment, and submits his own experience in evidence that the necessity of administering purgatives, of restricting the diet, and keeping the patient quiet for some time after a celiotomy, does not exist. By following a reverse plan of treatment, he claims not only to have had no ill effects, but to have derived distinct advantages, the patients being unable to leave bed and hospital much earlier, and in a stronger condition than was possible under the usual treatment. He omits the customary thorough evacuation of the intestines prior to operation, and afterwards trusts to an enema on the first or second day for securing a movement, deeming the ordinary cathartics and salines employed for this purpose, and for their supposed influence in lessening the danger of peritonitis, unnecessary if not harmful. Difficulty in moving the bowels he regards as the effect of, not in any case a cause of peritonitis. His patients are encouraged to turn over in bed immediately after the operation and many of his cases have been allowed to sit up on the third day, the majority of them by the sixth or eighth day. The food given, when the patient so desired, was meat, bread and vegetables, if after twenty-four hours peritonitis was proven not to be present by the absence of the usual symptoms, including an easy bowel action. The same course was pursued even where intestinal operation was done, and without bad result. This method of after-treatment in his hands had avoided the muscular atrophy and general debility often observed in the subjects of celiotomy, and the patients were enabled to leave the hospital and attend to their duties at the end of two or three weeks.

It is altogether possible that in the after-management of abdominal cases the precautionary measures as regards diet, lying in one position and confinement to bed, are sometimes too rigidly adhered to, but the method described by Dr. Ries, while very interesting, seems a somewhat radical correction for the occasional errors of over-carefulness, and, as has been said in the discussion of his paper, shows a possible rather than a proper method of treatment.

PROF. GIUSEPPE SANARELLI AND THE NEWSPAPERS.

The name of Sanarelli is the latest to achieve notoriety in the public mind in connection with a medical discovery, and if recent reports are trustworthy, he is the equal of Koch in seeking to extend this notoriety by means of the newspapers. A recent New York daily is said to have contained a history of the discovery of the specific cause of yellow fever, written by Prof. Sanarelli, and in addition the author proceeds to give a biographical sketch of himself and his work, in which, if one may judge from certain extracts, the Italian bacteriologist is not going to sink into obscurity from excess of modesty. He refers in a slighting manner to other investigators in the same field, especially Surgeon General Sternberg, whom he says spent

ten years of continuous but vain effort to find that which he, Sanarelli, accomplished in a fifth of the time.

Modern scientific men of the first rank seem as prone to fall a prey to modern commercialism as are any of those of lesser distinction. Koch has shown himself, notwithstanding his admittedly great services to science, possessor of a spirit of greed and jealousy which would be unbecoming in a horse-trader, he having lowered himself in the eyes of his profession by seeking to obtain a patent for his process of manufacturing antitoxin; and now the discoverer of the *bicillus icteroidies*, a young man of thirty-four years, writes a newspaper article exploiting himself and his work, so egotistical that a contemporary remarks that "it reads so much like the writings of a quack that we are loath to believe Sanarelli ever wrote it as printed." All of which proves that in spite of their success these gentlemen do not view the vast domain of undiscovered scientific problems with the humility of a Newton, their sense of proportion being doubtless congenitally deficient.

THE BUTTON OF THE AMERICAN MEDICAL ASSOCIATION.

We note that the official button of the American Medical Association is now ready to be placed on the coat lapel of each member. The button is said to be handsome in design, the chief features of which are protected by patent. The object sought in the adoption of a button is the furtherance of that spirit of unity among physicians which it is one of the principal aims of the National Association to foster. To quote from the report of the committee having this matter in charge: "We can readily see how the wearing of such means of permanent identification might be of much service in arousing a spirit of fellowship that would be helpful in bringing the members of the Association closer together. It would serve to fix attention and direct thought to the interest of the Association during the intervals between the annual meetings, and would prove suggestive of matters pertaining to its growth and development."

The device upon the button is suggestive and appropriate, and the price one dollar.

Treatment of Eclampsia.—During the attack itself, administer chloroform. As soon as the attack passes off give hypodermically fifteen drops of the fluid extract of *veratrum viride*, and a drachm of chloral in solution by enema. Place upon the tongue two drops of croton oil diluted with a little sweet oil. Induce diaphoresis by hot packs and extra bedclothing. Inject by gravity under the breast a pint or more of decinormal salt solution, or several quarts of the solution by enema. If convulsions recur, repeat the *veratrum* in five-drop doses if the pulse is quick and strong. If the face is congested and the pulse full, employ venesection enough to reduce the pulse. The chloral may be repeated during the attack two or three times. Use stimulants if the pulse is weak and rapid. If the convulsions cease and the patient is in a stupor, but can be aroused enough to swallow, give dessert-spoonfuls of concentrated solution of Epsom salts every fifteen or thirty minutes until free catharsis takes place. These condensed directions should be carried in the pocket case of every obstetrician.

—DR. BARTON C. HIRST.

Medical News and Items.

The Four Kinds.—"Yes, that's Dr. Bloggs."

"Allopath, homeopath, horse or divinity?"—*Indianapolis Journal*.

It is pathetically announced that the most digestible part of the dough-nut is the hole in the center.

Dr. Charles A. Julian, of Thomasville, N. C., a young physician of talent, will leave the "Old North State" to locate in Ohio.

One of the Newspapers recently announced that a physician had certified that a man had died of opisthotonos, which it described as "a first cousin to tetanus."

Someone has cleverly estimated that the quantity of beer consumed in a single year throughout the world would make a lake six feet deep, a whole mile wide, and three and three-quarters miles long.

Dr. Joseph B. Haven, of Chicago, has been appointed consul to St. Kitt's Island, W. I. Dr. Haven was graduated from Rush College, in 1880, and had built up a good practice. He left for his new field September 1.

The Southwest Medical Record of Houston, of Texas, says that a country doctor of that State wired Dr. D. F. Stuart of Houston to ship a mad stone at once. The latter answered by asking, "To what stone do you refer? I am not aware that any had gone mad."

Prof. William F. Smith has resigned the chair of anatomy in the College of Physicians and Surgeons, Baltimore, on account of ill health. Dr. Isaac R. Trimble has been elected to fill the vacancy. For some years Dr. Trimble has held the chair of anatomy and clinical surgery at the Woman's Medical College.

Treatment of Constipation.—Each evening, before retiring, an injection of plain water is to be taken and retained. The size of the injection is gradually increased from 8 oz., the beginning amount, to 24 oz., and the temperature of the water is gradually lowered until 68 degrees F. is reached. The duration of the treatment is from four to six weeks.—*La Semaine Med.*

Suprarenal Gland in Chloroform Accidents.—In the *Revue de Therap. Medico-Chir.*, we are told that Minkowsky has repeated the experiments of Biede and of Gottlieb, and has found that the use of suprarenal gland in the lower animals, does much toward preventing accidents during the administration of chloroform, probably through its powerful influence on the vascular system.—*Therap. Gazette*.

Yellow Fever.—A few days ago cases were reported in Key West and in New Orleans. The disease is not of a virulent type, but is spreading rapidly in Key West. In New Orleans and Mississippi towns in which the disease has appeared, the authorities have been able to prevent the disease becoming general. In Key West the total number of cases is 362, with 18 deaths. In New Orleans there have been 10 cases since May 1st, with 2 deaths.

The Nebraska Way of Lynching.—They do things scientifically out in Falls City, Neb. A man there on August 22d, criminally assaulted a little girl, and was quickly arrested and placed in jail; not, however, before a

crowd of would-be avengers had tried and failed to get the prisoner away from the officers. Along in the small hours of the morning, several hundred men got together, marched to the jail, broke in the doors, and one of the number—"perhaps a physician," the newspapers have it—"performed a surgical operation which will prevent the prisoner from committing any more such crimes."—*Journal of the American Medical Association*.

Appendicitis.—However light the clinical expression of appendicitis may be, and however much it may appear to be in favor of a speedy temporary recovery, the operation is always justifiable. As the strength of the infection can never be known with certainty from the beginning, it appears to be wiser to take each appendicitis seriously. Among two evils the smaller should be chosen, and the operation is the smaller evil.—*Carl Beck*.

A curious fact is reported by the *Medical Press and Circular* in regard to the assault on M. Labori, Dreyfus's counsel. He was in charge of Dr. Rèclus, a distinguished French surgeon, who was called by the family. Among those who shared in the excitement on the night of the attempted assassination was M. Doyen, another prominent French surgeon, who immediately seized his instruments and took the next train for Rennes and succeeded in obtaining an interview with the patient, which, it is said, was not allowed to take a professional turn, though in taking leave "he placed himself at the patient's disposal." The action has stirred up an ethical controversy in which, it is said, Dr. Rèclus very emphatically expressed his opinion.

A Post-Mortem Pulse.—Dr. H. A. Huntington, of Kingston, Jamaica, offers the suggestion of an artificial pulse to enable students to perform surgical operations on the cadaver under more nearly natural conditions. He writes: "Instead of injecting the arteries as at present, attach a rubber tube to a pump whose force and strokes shall be such as to send a red antiseptic fluid into the arteries of the cadaver, imitating as nearly as possible the conditions in life. Students can then perform all sorts of surgical operations under far more interesting and instructive conditions than on the dead cadaver. Using a gas engine or electric motor with suitable pipes and tubes, every dissecting table can have its 'pulse' ready to 'turn on' to the cadaver."—*Med. Record*.

Medical Students Accused of Practicing Fraud.—*The Philadelphia Press*, in its issue of September 3, contains an accusation which if proved to be true, will react very unfavorably on the candidates who recently passed the examination prescribed by the Board of Medical Examiners of Pennsylvania. This paper charges on information furnished it that the students of at least two of the medical colleges of Philadelphia had been provided with all the questions asked by the Board, previous to the examinations. It is not definitely known as to how the questions were obtained, but the idea is hinted at that the sum of \$500 was placed in the hands of the printer at Harrisburg, and that the questions were then transferred to probably one of the students, representing a clique, to be subsequently sold to the candidates intending to present themselves before the State Board of Medical Examiners. It is charged further that these questions were circulated widely. A recent graduate in medicine—whose name is not given—stated that papers containing the whole set of questions were offered him for \$2.50.—*Journal American Medical Association*.

Another victory was scored by the Illinois State Board of Health, August 17, when Joseph Skalla, 571 West Eighteenth Street, Chicago, was fined \$100 and costs for violating the medical practice act. The prosecution charged Skalla with making and selling medicinal remedies and treating the sick in violation of the State law. It also showed that Skalla was not a regularly licensed physician, and on this testimony the justice imposed the regulation fine for the first offense. The case was not appealed.

Transactions of the Medical Society of the State of North Carolina.—A copy of the Transactions of the Asheville meeting has been received. The volume contains over two hundred and fifty pages, well printed on extra laid paper, and is handsomely bound. In appearance, accuracy and arrangement the Transactions this year compare favorably with those of any Society North or West. We feel proud of the evident progress we are making. We would feel remiss in our duty if we did not recognize the ability Dr. Pressly, the Secretary, has manifested in getting out these Transactions. Only two months since the Society met, and here are our Transactions handsomely and accurately prepared, and at a cost surprisingly small; especially if compared with the prices the Society has formerly paid.—*Charlotte Med. Journal.*

Another State "Wheeling Into Line."—The State Board of Health of Kentucky has given notice that it will hereafter refuse to recognize as a basis for certificates to practise medicine, diplomas from any medical college which does not in good faith comply with the requirements of the American Medical College Association, the American Institute of Homeopathy, and the American Eclectic Medical College Association, respectively, both as to preliminary education and four years' course of study. This means that no school that graduates three-year students will be recognized in Kentucky hereafter. The Board provided an examination for three-year graduates of the present year, as many of the students had attended such schools in ignorance of its advanced requirements, but found this course unsatisfactory, a large percentage of the examinations indicating incomplete preliminary education as well as imperfect medical training. This standard for the State of Kentucky was made and promulgated in 1891, to take effect the present year, but is again published that schools patronized by Kentucky students and future graduates, expecting to practice in the State, may fully understand the requirement of the Board.—*Medical News.*

Why He Had Three Lanterns.—The following story, which appears in a Greek journal published in Cyprus, has been sent to us: A embarrassing law in China forces every physician to hang out at his door at night as many lighted lanterns as he has sent unfortunate ones into the other world. One evening a European, a business man living in Peking, went out to summon a physician to attend his wife, who had been taken sick suddenly. He passed many physicians' houses, but feared to enter any of these because they all had a large number of lanterns. Finally he came to one where only three lanterns cast their melancholic shine over the entrance. Our European thought himself fortunate, entered the house of this wise disciple of Æsculapius, awoke him, and took him to his own house. While the two were walking along the merchant said, "I presume you are the best physician in this city?" "What makes you think so, sir?" "Because you have only three lanterns at your door, while all your colleagues have dozens of them." "Ah, this is the reason," answered calmly our unsophisticated Æsculapius: "the truth is that only the day before yesterday I hung out my sign for the first time, and as yet I have only been called to attend three patients."

A German doctor now residing in Buffalo, Dr. Max Breuer, has recently been decorated with the cross of the Legion of Honor by the French Government, says *Prog. Med.*, August 5. It seems that a young French sailor on an oil ship from Rouen to Philadelphia had his arm crushed and gangrene appeared, with no medical assistance on board. An English ship passed without paying attention to the signal of distress the captain raised, but the *Russia* of the Hamburg line, hove to, although forbidden to approach within a certain distance of an oil ship. To the signal for a surgeon, the *Russia's* medical officer, Dr. Breuer, 28 years of age, responded with eight volunteers to man the boat in the heavy sea, amputated the arm and saved the sailor. When offered money for his services he replied: "The danger my men and I are facing at this moment can not be paid with money."

Blood-washing Treatment of Syphilis.—Dr. Harvey P. Jack (*Journal Alumni Association*, College Physicians and Surgeons, Baltimore, July, 1899, Vol. II. No. 2) has originated what he terms the blood-washing treatment of malignant syphilis. His method consists in the withdrawal of from one-half to one pint of blood from the arm by the usual method at intervals of one or two weeks, being replaced at once by injecting under nipples, twice the quantity removed of a hot normal salt solution, in which solution was placed a sufficient quantity of mercury bichlorid to make a solution of the strength of 1-25000. He recommends that the patient be kept in bed for three days after the treatment and kept on a milk diet. He repeated his plan of treatment six times in three cases. One case was a very malignant one, his septum nasi was gone, he had localized paralysis, ulcerations on the shin bones and peristitis. The other two cases were those of recent syphilis. The result has been all that could be desired in all cases. After the blood-washing the cases were put upon appropriate treatment—mixed treatment for the late case, and pratioiodid or biniodid for the early ones. R. L. F.

The Preventive Action of Chloroform Water Against Post-anæsthetic Accidents.—M. Weber (*Journal des praticiens*, May 6th), as a consequence of observations on a patient who had been submitted to chloroform medication by internal administration, and who was subsequently submitted to operation, recommends that for some weeks the patient to be operated on should, if possible, be placed upon the following mixture:

R	Chloroform water	3,000 grains.
	Tincture of badiane (<i>Illicium anisatum</i>) or essence of mint	} of each, 4 drops.
	Tincture of anise,	

M. Filter after twelve hours.

Subsequently to his first accidental observation, M. Weber has experimented upon many patients and finds that this treatment, when practicable, prevents the supervention of the unpleasant accidents attendant ordinarily on the administration of chloroform.—*N. Y. Med. Jour.*

Dr. Arendt calls attention to a new method of controlling post-partum hemorrhage. He seizes the cervix with a bullet or volsellum forceps and draws it down to the vulva. This kinks the afferent vessels, and so stops or lessens the flow of blood through them. Uterine action is excited by alternate traction and relaxation. He believes that tamponing of the uterus is effective mainly because of the incidental pulling down of the uterus.—*Therapeut. Monats.*, Vol. XII. No. 1.

Chancroid.—After thorough cleansing, the sore should be *lightly* dusted over with nosophen. Applications of this powder need not be made oftener than every second day. Improvement will be apparent after the first application.—*The Med. Fort.*

Review of Medical and Surgical Progress.

An Epitome of Surgical Progress.

By JOHN H. GIBBON, M. D., Philadelphia, Pa.

Operations in Gastric Ulcer.—By Leonard A. Bidwell, F. R. C. S., England (*American Journal of Medical Sciences* for September, '99).—First operation for perforating gastric ulcer was done in 1881, since when several hundred such operations have been reported. The operation may be demanded because of profuse hemorrhage or because of oft-repeated slight hemorrhage. When perforation occurs it becomes at once imperative, and the author also recommends it for cases resisting the ordinary medical treatment, especially when dilatation of the stomach exists as a result of cicatricial stenosis of the pyloric opening. In 90 reported cases the perforation occurred in anterior wall 64 times, in posterior wall 16 times, at lesser curvature 6 times, at pylorus 3 times, and in one case both walls were affected. The symptoms of perforation are given as follows: History of treatment for gastric ulcer with hæmatemesis, sudden pain, shock, rigidity of abdominal muscles with a tender spot over the stomach, lessened or absent liver dullness, and the presence of free fluid in the peritoneal cavity. The symptoms of perforation of posterior wall are more obscure. Great stress is laid upon the necessity of an early diagnosis and prompt operation, "since the prognosis after operation is directly dependent upon the length of time which has elapsed between the occurrence of perforation and the operation." In 25 successful cases in which time was given, the operation was done within six hours of perforation in 8 cases, between six and twelve hours in 5 cases, between twelve and twenty-four hours in 7 cases, at an interval longer than twenty-four hours in 5 cases. In 17 fatal cases, in which time was given, none were operated on within twelve hours, 7 were done within twenty-four hours, 6 within forty-eight hours and 4 at an interval exceeding forty-eight hours. No better proof of the advantage of early operation could be desired than this given by the author.

He advises against any attempt at excision of the ulcer, and uses either the Halsted or Lempert suture, keeping at considerable distance from the edges of the ulcer. He irrigates thoroughly every part of the peritoneal cavity with salt solution, being careful to go well over the upper surface of the liver, and drains freely with rubber tube and gauze through incision made above the umbilicus, and sometimes makes another opening below and passes a drainage tube into Douglas's pouch. Feeding after the operation should be by the rectum for three or four days.

The author speaks of the formation of adhesion, before perforation, and rupture into the colon, pericardium or small intestine, and the occurrence of subphrenic abscess. A mistake in diagnosis is also warned against, particularly that of taking a case of severe colic for perforation, as has been done.

The mortality in the 55 cases of perforation collected by the author and operated upon during the past year, was 40 per cent. Other statisticians place the mortality higher.

In operations for hemorrhage the author has found the mortality higher, but this he attributes to the fact that more radical measures were resorted to, such as complete excision of ulcer, anastomosis, etc.

Report of a Case of Resection of the Liver for the Removal of a Neoplasm, With a Table of 76 Cases of Resection of the Liver for Hepatic Tumors.—By W. W. Keen, M. D., of Philadelphia (*Annals of Surgery* for

Sept. '99).—This report is the author's third of resection of the liver for a tumor, all recovering. The present case was that of a man 50 years of age, suffering with a carcinoma of left lobe, which had first given rise to symptoms three months previously, during which time the patient had lost 30 pounds in weight.

On opening the abdomen the left lobe came readily into view and was enlarged and nodular, the rest of the liver was smooth and not enlarged, and the lymphatics were not found to be involved. The left lobe was then excised, the operation being accomplished entirely with the Paquelin cautery, the neighboring parts being protected by wet gauze pads. The bleeding was not very severe, excepting upon the division of the large veins, but these were easily ligated. In anticipation of profuse hemorrhage the patient had an intravenous injection of a quart of salt solution. The edges of the remaining raw surface were brought as nearly together as was possible by catgut sutures, and to provide against hemorrhage, the flow of bile, and subsequent adhesion of neighboring parts, a strip of iodoform gauze was packed over the exposed area and allowed to protude through the abdominal incision; this was removed at the end of forty-eight hours. The patient's recovery was uninterrupted, except for considerable irritation of the stomach during first two days, which was then relieved by washing out the stomach. There was considerable discharge of bile for some days, but this gradually decreased and finally disappeared. The diagnosis of carcinoma was corroborated by three pathologists, who examined sections of the growth.

In using the cautery, the author advises a slow division of the tissue, and with the cautery heated only to a dull red. He took from 20 to 30 minutes for the division in this case, including the time required for placing five catgut ligatures on veins. In 74 tabulated cases of resection of the liver for tumors, the author found 63 recoveries and 11 deaths, being a mortality of 14.9 per cent.

The Intestinal Treatment of Tuberculous Peritonitis.—By Henry T. Byford, M. D., of Chicago (*Annals of Surgery* for September, '99).—After a comparison of the mortality rates of the medical and surgical treatment of tuberculous peritonitis, in which he shows the latter to be somewhat more successful, he endeavors to explain why is it so. He, however, first suggests that many of the cases which are temporarily benefited by abdominal incision are reported as cures, whereas, if the reporter had waited a little longer he might have had a different report to make. It is undoubtedly true that these cases, particularly where there is much effusion, are strangely benefited by simple abdominal sections and that no very satisfactory explanation of this improvement has ever been offered. Byford says the improved condition is not due to the removal of fluid, for tapping does not give the same result and besides cases without fluid are also benefited by section, nor is it the exposure to air and light, as has been suggested, for quick work is more successful than slow. It is not anything that destroys bacteria, for the use of germicides does not affect the result. He denies that opening the peritoneum produces such a change in its physiological function that tubercles are destroyed, and also declines to accept the theory, that the cure is due to increased phagocytosis. "I have come to the conclusion that there is some benefit connected with abdominal incision that is not connected with tapping and the other forms of treatment, and that it is the same thing that causes improvement in almost all cases treated by abdominal section, even when pathological conditions in the peritoneal cavity are not removed or are not

even found. Thus cases of neurasthenia, hysteria, epilepsy, pelvic pain, etc., are usually temporarily benefitted by an abdominal section, although they may lose the benefit later." The author then declares his belief that the thing which causes this improvement is the preparation and after-treatment which accompanies the abdominal section, and in illustration reports a case in which he tried the usual medical treatment with no effect, then he put the patient through the usual preparation, and after-treatment of a laparotomy, with the result that the fluid was absorbed, the temperature came down and patient gained flesh and strength. He concludes by recommending the following treatment: During the first few days, when the condition is acute, the ordinary treatment of acute peritonitis, but opium must not be continued more than a day or two. Use hot fermentations or ice cap for pain. Keep stools dark green with calomel, and when the stomach will stand it give sufficient saline to produce two or three soft liquid stools a day. Diet the author lays greatest stress upon; it should be liquid and easily digested and given at regular intervals. "It is the want of strict intelligent attention to what is taken as nourishment that leads to intestinal pain, distention, nausea, increase of the peritonitis and effusion, and the necessity for an opiate." Patient must be kept absolutely in bed until the abdominal tenderness has gone and the afternoon temperature is normal, and must return to bed if pain comes back or temperature rises. Intestinal antiseptics such as salol, guaiacol or creosote, are used, and if diarrhœa occurs bismuth is given. The author depends largely upon diet and intestinal antiseptics to prevent diarrhœa.

When it is remembered that we do not know why cases of this nature when operated upon do improve, and that this improvement is so often only temporary, it would certainly seem that Dr. Byford's "Intestinal Treatment" should have a trial before resorting to abdominal section. In severe cases and those in which the fluid is not absorbed after this treatment, he recommends that operation be done.

Ninety-three Consecutive Abdominal Sections Without a Death, with Clinical and Pathological Reports.—By Hunter Rabb, M. D., of Cleveland, Ohio (*Phila. Med. Jour.*, Sept. 2nd, '99).—The author made no attempt to select these 93 cases, but operated upon them as they presented themselves. He says that he attributes his success in this series of cases more to a careful operative technique and to the preparatory and after-treatment of the patient than to the skill of the operator. The preparation of the patient, the surgeon, his assistants and the instruments, is that described in his book on "Aseptic Surgical Technique."

The catgut used is that prepared by Kiliani, and the chromicized gut of St. John Levans and Van Horn. Sponges are made of sterilized gauze. The author recommends the use of rubber gloves. All irrigation is done with normal salt solution poured directly into the cavity from glass graduates. Strips of sterilized gauze are used for drainage, no glass tube being used in past five years. Every case is irrigated with salt solution and a portion of the fluid left in the abdomen. *After-treatment.*—Keep patient in recumbent position with elevation of foot of bed. To prevent shock, strychnia is given hyperdermically and enemata of hot coffee 2 hours apart. Thirst is controlled by giving water per rectum. After first or second day, if nausea exists 5 or 10 grs. of soda bicarbonate is given in two teaspoonfuls of hot water, and repeated every hour or two, and sometimes supplemented with a mustard leaf over the epigastrium. Morphia is not given as a routine for pain and is avoided whenever possible. Bowels are opened by giving on morning after the operation 2 grs. of calomel; 8 hours later 2 oz. of glycerine

is injected high up into the rectum and followed 2 hours later by a pint of soap-suds and warm water. When necessary catheterization is done every 8 hours. Patient is usually kept on the back for the first 12 hours, when she is turned on the side for brief periods. For tympanites the rectal tube is placed in the rectum for half an hour to an hour at a time, and this the author has found very effective. Sometimes an injection of oil, turpentine and water is also given and a mustard plaster or turpentine applied over the abdomen.

In concluding, the author lays stress upon the use of rubber gloves and the irrigation with salt solution. Supplementing the article is the clinical and pathological report.

Appendicitis—When to Operate.—Richardson (*Journal American Medical Association*).—The question of operation in cases of appendicitis is growing in intensity, possibly because we are nearing the time when our data should furnish us with some pretty definite rules for guidance. Of interest in this connection is a paper read by Dr. M. H. Richardson, of Boston, before the American Medical Surgical Association.

The conclusions arrived at are the results of experience in 904 cases personally observed and treated, and of personal observation of many other cases in the practice of his hospital colleagues. He states that at the bedside, in a specific case of appendicitis, there would doubtless be little difference of opinion even among those surgeons who seem to differ materially in the expression of their views. There is a wise middle course by which unnecessary operations are avoided and necessary ones performed.

I. In the initial stage: (1) Severe symptoms of onset demand immediate intervention. These symptoms are pain, vomiting, tenderness, rigidity, shock—those common to most acute abdominal emergencies; (2) cases of mild onset may well wait until a second observation shows the probable course of the case. The most important question is not whether to operate in appendicitis, but rather when to operate. In a large percentage of acute cases recovery from the acute attack will take place, and operation can be safely performed through a small incision which will not weaken the abdominal wall. Operation must not be delayed, however, unless there are reliable signs of convalescence.

II. After the initial stage, the question becomes more difficult. When observed for the first time on the second, third, or fourth days, (1) severe cases should be operated on at once, unless they are improving so rapidly that there is a strong expectation of complete recovery and interval for operation. Intervention is still more strongly indicated if the symptoms are increasing in severity. Operation is indicated if the symptoms recur after marked improvement. After the early hours, the character and extent of pain, tenderness, and rigidity, are important as determining the width and depth of the area infected. The constitutional signs are less reliable than the local. (2) If the patient is improving with a successfully localized peritonitis of considerable extent, especially if centrally localized, as in the pelvis, let operation be postponed until intervention can be safely practiced, because these cases comprise, in the absence of general peritonitis, the most dangerous ones. The chief objection to operating in every case is the danger of converting a local into a general peritonitis.

Intervention becomes safer with a few hours or days delay in improving cases: (a) because the general exudate, so easily infected during operation, becomes absorbed; (b) because the local exudate diminishes in size; (c) because

walling off with gauze is practicable when adhesions are firm, impossible when they are thin; (d) operation at once ruptures the localized peritonitis and starts the too often fatal peritonitis. If the patient is not actually improving, this serious danger must be deliberately encountered, because the localized peritonitis will probably rupture by itself without operation. When there is a tumor situated to the right side, or directly under the abdominal wall, so that walling off with gauze is practicable, operation may be performed under conditions that would contra-indicate intervention when the tumor is centrally located or in the pelvis.—*A. T. Mann, in Medical Dial.*

Surgical Hints.—In syphilitic ulcer of the tongue, the floor of the mouth is usually not involved, so that the tongue may be moved quite freely. In epithelioma it becomes involved early with consequent loss of motion.

If a patient should happen to become salivated during mercurial treatment, do not at once give iodide, since this drug, by increasing the elimination of mercury, will at least temporarily increase the trouble.

Never remove a large sequestrum or a foreign body situated near a blood-vessel of any importance, without being ready to tie the vessel in case of hemorrhage. In one case the carotid artery had to be tied for hemorrhage resulting from the removal of a necrosed portion of the lower jaw.

In urethral stricture, complete retention may occur even when the stricture is not of a very small calibre. If any inflammation is present, a very slight spasmodic action may suffice to close the canal, and this spasm will continue, and even grow stronger, until a catheter is passed. Always begin with a fair-sized instrument.

In retro-pharyngeal abscess it used to be advised to empty the abscess first with a trocar, in order to avoid flooding the larynx with pus and causing suffocation. If we can open the abscess with a knife, while the patient's head is lower than his body, in the position adopted for feeding intubation cases, the danger is avoided and the opening will be more thoroughly done.

In severe pain in the testicle occurring in old men, if we can exclude the presence of inflammation due to the ordinary infectious conditions, inquire into the possible presence of gout. In this disease an attack occasionally begins in the testicle, and gives rise to excruciating pain. Colchicum in full doses is a specific for this. Heat is usually grateful to the patient. Cold applications are not indicated.

In cases of strangury occurring in old men, after operations upon the rectum, the condition may sometimes persist for two or more days, especially if there is any prostatic trouble or urethral stricture. This may often be cut short by leaving the catheter in for a few hours. There is no danger in this if our asepsis has been thorough. It is also important to remember that in such cases we may remove only a small part of the urine contained in the bladder. To avoid this, percuss the bladder as soon as the urine stops flowing. If we have reason to believe that any urine is left, we should turn the patient over on one side, and we will often see several ounces more gushing out quite fast.—*International Journal of Surgery, February.*

JNO. C. LEVIS, M. D., West Bridgewater, Pa., says: "I have used Celerina in my own case for insomnia. Among all the hypnotic preparations and nerve tonics, it stands justly pre-eminent. Several persons are now using it and report that no preparation has given such permanent and prompt relief. In a general practice of more than half a century, this is perhaps the first public testimony I have offered. Celerina is the very best nerve tonic now offered to the profession, and can not be too highly recommended. To those wanting a nerve stimulant, it will be just the remedy.

"A Little Nonsense Now and Then, Etc."

Young Lady's Diary.—On transatlantic steamer: Evening.—"Took three pills before retiring." Morning.—"Passed an iceberg at 7 a. m."—*St. Louis Clinique.*

His Impression.—Doctor: "My rule is, 'be sure you're right, and then go ahead.'"

Friend: "Indeed? I thought it was, 'when in doubt, perform an operation.'"—*Puck.*

But No Remedy.—Doctor: "Have you taken any remedy for this trouble?"

Patient: "No, doctor, I have not; but I've taken a power of medicine."—*Harlem Life.*

Healing: "Did that stuff revive you?" asked the attending physician of his impatient patient.

"Revive me, doc? Good heavens! three doses of that medicine would resuscitate the dead languages."—*Detroit Free Press.*

"If I Were You": The customer wanted a little drop of prussic acid, which the assistant refused. "Do I look like a man who would kill himself?" asked the customer. "I don't know, I'm sure," said the assistant; "but if I looked like you I should be tempted."—*Chemist and Druggist.*

Infant Philosophy.—Tottie (aged 5).—I wonder why babies is always born in the night time?

Lottie (aged 7, a little wiser).—Don't you know? It's cos they wants to make sure of findin' their mothers at home.—*Harlem Life.*

Naturally.—Student.—How is it, doctor, that I always take a cold in my head?

Doctor.—It is a well-known principle, sir, that a cold is most likely to settle in the weakest part.

Common Experience.—Old Foozle: "So, my son, you have laid aside your studies and are about to enter upon the active duties of life?"

Young Foozle: "Yes, dad; but since I got my sheepskin and have had time to look around me, I am surprised to find the active duties of life so very closely attended to already."—*Boston Transcript.*

PREACHING AND PRACTICE.

When a doctor makes a visit
To a home where one lies ill,
Oft he takes heroic measures,
Here we see the size of pill: 

But when from hard work and exposure
The doctor's own health goes amiss,
And symptoms call for medication,
The doctor takes a dose like this: o.

—*"Medical World."*

A Question of Chemistry.—Said Mickey Finn to the patrons of O'Shaughnessy's bar-room: "Me by is stiddyng fwot he calls ke-mist-ree, but Oi think it's dom humbug. He said last noit that if he tuk one bottle of oxygen, and two of hydero-gin, that thin he could make water. Oi said nothin' but Oi thought any dom fool knew that without going to a school to learn it."—*American Druggist.*

Publishers' Department.

PREVALENT DISORDERS OF THE SEASON.—The bane of child-life at the present day is stomach and bowel disorders, and the imperfect assimilation of food is the factor of various diseases which imperil health and tend to destroy life. The physician and pharmacist exert all their art and skill to combat the conditions that lead to the above complaints, as the pre-requisite for a sound body and good blood is perfect digestion. While not assuming to instruct, but simply to suggest, observation and recorded clinical experience at the bedside have abundantly confirmed the great therapeutic value of Elixir Maltopepsine (Tilden's) as a digestive ferment, its action being markedly beneficial in stomach and bowel irregularities such as acid stomach, heartburn, indigestion, summer complaint of teething children, and especially the exhaustive anæmia following protracted illness.

Where drugs are resorted to, they must be of the mildest, non-irritating kind. Elixir Maltopepsine is a delightful summer adjunct to the physician's pharmacopœia, as it is readily borne by the most intolerant stomach. In heart depression superinduced by faulty digestion and prolonged anæmia, a deservedly favorite combination will be found in the following prescription :

R Elixir Maltopepsine (Tilden's)..... f ʒ ij.

Elixir Digitalin Comp. et Strophanthin (Tilden's) f ʒ j.

M. Sig. Teaspoonful as required.

VIN MARIANI IN EXHAUSTION.—We have had occasion in numerous instances to administer "Vin Mariani" to business and professional men who complained of being gradually run down. The work of the office, the cares and worry entailed by business, and the physical flaccidity brought on by overwork, all seemed to give way completely in a marvelously short space of time, despite the fact that the subjects continued uninterruptedly at their usual occupations. The notable fact to be observed is, that in each instance the effect was permanent. But it must not be forgotten that, in order to make this result a lasting one, it is necessary to keep the patient upon a prolonged course in the use "Vin Mariani." There is no doubt, whatever, that this preparation has proven itself a boon to mankind.—*The St. Louis Medical and Surgical Journal*, March, 1899.

A WANT FELT AND FILLED.—If the doctor had never accomplished anything more definite in his life-work than the relief of pain, than amelioration of human suffering, he would not have lived in vain. It is all very well to say that pain is physiological, that it is the cry of the nerve for more blood, yet its continuance cannot be borne by the patient, even by the most heroic Spartan. Long-continued pain is dangerous, and while of course we never wish to obtund and remove it so completely as not to be able to ascertain its cause, and remove the same, yet, the best interest of our patient requires from time to time the administration of that which is opposed to pain. Remedies like opium, which relieve the pain and at the same time are exhilarating and alluring in their effects, are oft-times most dangerous in the remote demoralization which they produce upon our patient. A remedy for the relief of pain which does not tie up the secretions, which carries with it no exaltation and no fascinations which tend in the direction of developing drug habits is a desideratum. Five-grain Antikamnia Tablets certainly meet this necessity. Antikamnia is also more prompt and decided in its action in labor than opium, and has none of the unpleasant after-effects. It may be continued in smaller doses to control after-pains, and rather favors than interferes with the secretion of milk.

Render Unto Cæsar the Things Which are Cæsar's. It gives me pleasure at all times to render unto Cæsar the things which are Cæsar's. Although I am opposed to giving certificates relative to proprietary medicines, in this case I overlook my objections as I consider Sanmetto one of the greatest vitalizers of the reproductive organs now in use.

P. C. JONES, M. D.

Kansas City, Mo.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, OCTOBER 5, 1899.

No. 7

Original Communications.

Fractures of the Skull.*

By J. GARLAND SHERRILL, A. M., M. D.

Lecturer on Surgery in the Hospital College of Medicine, Louisville, Kentucky.

IN a paper read before the Falls City Medical Society of Louisville, the author said in part:

Fractures of the skull are divided into those of the vault and those of the base. Frequently a fracture extends from the vault to the base, and such an injury proves additionally serious from its extent.

The mere fissure or solution of continuity of the bones of the calvaria does not of itself prove serious, but the damage done to the brain substance and to the intracranial vessels by the force which produces the fracture and the injury of these structures by fragments of bone, determine the gravity of a given case.

A fracture complicated, then, by injury of the contents of the calvaria is a serious affair, and the additional complication by a communication with the surface and the probability of septic meningitis adds much to the gravity. A fracture might be possible without either of these more serious complications, but it is of such rarity that it is safe to say that a fracture of the skull is always complicated.

Fractures involving the base differ from those of the vault in that the force necessary to their production is greater, and also in the proximity of the most vital structures. The prognosis in these injuries is therefore even more grave than in those of the vault.

No injury about the head is so insignificant as to be ignored, and none so severe that there is not a chance for the patient's life.

Symptoms.—Symptoms indicative of a fracture of the skull are frequently delayed for some time after the occurrence of the injury. I recall two cases terminating fatally in which symptoms of serious injury of the brain were not present for over twelve hours. In each the fracture extended

*Reported for this Journal by C. C. Mapes, M. D.

from the vault to the base, and in one almost entirely across the base of the skull.

The symptoms following injury to the skull have been classified as those of concussion and those of compression of the brain; and the lines of distinction have, by most writers, been clearly drawn. I believe in the majority of these injuries we will find symptoms present, which are the result of laceration of the brain, and also symptoms indicative of pressure upon the brain itself, either from bone or from hemorrhage. Some time must of necessity elapse before compression from hemorrhage occurs, but when a fragment of bone presses upon an important center, the symptoms come on at once; and in marked cases these symptoms are unmistakable—complete unconsciousness, slow stertorous respiration, full slow pulse, skin usually warm and perhaps moist, pupils respond feebly or not at all to light, temperature slightly sub-normal; the condition of the pupils varies according to the site of pressure, often both contracted, or one may be dilated and the other contracted; power of motion is lost, retained urine overflows, and fecal incontinence prevails. Cases with marked symptoms are urgent, and the diagnosis certain.

The delay necessary for development of symptoms resulting from hemorrhage lessens the chances of benefit from operative measures owing to the frequency with which the brain fails to expand after exposure to this amount of compression. Therefore, it is imperative that the earliest symptoms of brain injuries be studied. Laceration of the cerebral tissue, no matter how slight, produces symptoms of syncope and shock, and these symptoms increase proportionately with the amount of damage done, from a slight dizziness to more or less complete loss of consciousness, with pallor of the face, cold, damp surface, nausea, and perhaps vomiting. This latter symptom, formerly looked upon as favorable—indicative of returning consciousness—while probably true sometimes, has more frequently no significance with reference to the amount of damage present. The pulse may be rapid or slow, but is usually feeble and compressible. Hemorrhage from the nose is not infrequent, and even bleeding from the ears may occur without fracture. (Gross.) This latter symptom only means that the blow was severe enough to rupture the drum membranes, and this of course would be more likely to occur when the petrous portion was broken. The respirations are usually shallow, intermittent, sighing, but may be noisy or labored. Temperature is markedly lowered.

These symptoms are very variable and often merge into those first described. The symptoms are by no means constant or indicative of the character of injury present, and are for the most part probably produced by the effect of the injury upon the sympathetic system.

With such a train of symptoms presenting, what is best to be done for the patient? No steps should be taken without the greatest care and painstaking to observe aseptic rules. It is perhaps better to allow the patient to go unaided than to add a septic infection to his already grave condition. Before arriving at any conclusion the scalp should be shaved and carefully

examined: valuable information can thus be elicited. Whenever there is **the slightest** suspicion of a fracture, an exploratory incision through the **scalp should** be made. The value of information thus elicited by far **outweighs the danger** of such incision which, with proper precaution, is trifling. Whenever a fracture is discovered the calvaria should be opened and its contents examined. The danger of epilepsy and other nervous disorders is so great, to say nothing of immediate danger to life, from failure to lift a fragment of bone or to **remove a clot**, that a surgeon is to be censured who fails to follow this **plan of investigation and treatment**.

The patient presented fully exemplifies the value of this advice, as is shown by the following history:

Mr. R. B., white, laborer, aged thirty-two years, was struck a severe blow on the right side of the head about 3:30 p. m., April 6, 1898. He was given a hypodermic injection of digitalin by his physician before admission into the hospital. About three-quarters of an hour later, upon admission into the ward, he was partially conscious, replying indifferently well to questions; never unconscious. Pulse was compressible, but only 40 to the minute; respirations 14, and shallow; no stertor; surface pale and cold, with slight perspiration; no evidence of paralysis. When I first saw the patient, pupils were contracted; later the right was dilated and the left contracted; both responded feebly to light. There was slight hemorrhage from both ears, most from the right.

After shaving the scalp, a contusion of the tissues above the right ear and a hematoma could be detected. On deep pressure the patient flinched. No fracture could be made out. The scalp was lifted to clear up the diagnosis, and the following condition presented: A depressed fracture two inches in width by three and one-quarter inches in length was found involving the lower part of the right parietal and upper part of the squamous portion of the temporal bone. On removing this a large extra-dural clot was discovered, evidently due to rupture of the posterior branch of the middle meningeal artery.

About two hours after the operation (April 6), the patient's pulse was 74, respirations 24, temperature 97.4° F.; at 7 o'clock the temperature was 98.6° F., reaching 100.2° F. later in the evening.

At 6 o'clock p. m., April 7, temperature was 99.8° F., respirations 22, pulse 60. Little change until April 10, when temperature was 101.6° F., respiration 32, pulse 78.

April 11, 2:30 p. m., temperature was 101.4° F., respirations 54, pulse 106, reaching 120 shortly afterwards.

On each of these occasions the wound was dressed, and immediately after the dressing the respirations came down. Up to that time there had been no suppuration, but there was a large blood-clot between the scalp and the dura which caused some pressure, and the absorption of serum probably gave rise to the elevation of temperature and acceleration of pulse. Two days later slight infection occurred; the wound was partially opened and

thoroughly irrigated, and after this washing (April 13) the man had no trouble whatever. There has been some little discharge from the wound since, but the brain seems to be free from infection.

While the patient was present, you observed that the wound had almost entirely healed. The man's intellection is perfect; there has not been at any time the slightest evidence of paralysis, and if we can judge from his present appearance, ultimate recovery is assured. I made a very large horse-shoe incision, extending from a point just behind the ear to within one inch of outer angle of the orbit.

The mortality following trephining (according to Wagner and Seydel) is so slight (1.23 per cent.) compared with the cases expectantly treated (33.33 per cent.), that in my opinion operative interference is positively demanded in all cases of fracture of the skull within reach of the investigation of the surgeon.

DISCUSSION.

Dr. W. F. Boggess: When I was a medical student we were taught to make a differential diagnosis always between compression and concussion of the brain; but the surgeon of to-day is rarely expected to make these fine points of differentiation between the two conditions. It is impossible to clearly define them, both are clearly due to true trauma, and the surgeon who stops to make a differentiation of symptoms is criminal. Under the aseptic precautions of modern surgery there is so little danger in opening the scalp and trephining that the surgeon is not justified in waiting for the development of symptoms, but should operate at once. All the cases of this character that I have seen, which were not subjected to prompt surgical interference, have either developed epilepsy, insanity, or other well-recognized brain symptoms clearly due to pressure.

The modern surgeon is dealing with brain lesions at the present day as he has never done before, and the results that have been obtained justify prompt surgical measures.

Dr. Jas. B. Bullitt: The appearance of the patient who has just been before us is the highest possible commendation of the course pursued by Doctor Sherrill. I commend most fully his statement that wherever even a suspicion of fracture of the skull exists, it is the duty of the surgeon to investigate it thoroughly by means of an exploratory incision; the scalp is so wonderfully and adequately supplied with blood that if proper rules of asepsis are followed an incision for the purpose of exploration is practically devoid of any possible danger, that it is to be commended even where its utility may prove to be futile.

What Doctor Boggess has said about the after-effects of these injuries, epilepsy, insanity, imbecility, etc., which may occur even years after the receipt of injuries to the brain which did not receive proper surgical attention at the time, is only forced upon the general surgeon many times during every year. I saw to-day a little boy who had sustained a blow on the head when nine years old, being now sixteen. Some time after the injury epilep-

tiform seizures began, and while he is a bright lad otherwise, still every day he has three or four of these attacks, and is practically incapacitated for any of the usual walks of life. As time goes on it is only to be presumed that the general effect on his sensorium will be more and more pronounced until finally he will be absolutely incapacitated for any kind of mental or physical work. I doubt not if this boy had received anything like the radical treatment Doctor Sherrill had suggested and illustrated at the time the injury was sustained, this after-train of symptoms might have been obviated; and while the boy has been operated upon once by a very good surgeon with temporary relief, recurrence was prompt, which is the history of nearly all such cases.

The initial danger of exploration is so slight, and the ultimate results are so favorable, that we ought all to be impressed with the fact that no chances should be taken, and that wherever there seems to be an indication for it, it should be done fearlessly and thoroughly.

Dr. A. O. Pfingst: Considering the subject of cranial fractures from an otological standpoint: We seldom see those cases of fracture of the bone which extend into and cause hemorrhage from the ear. I recall one case seen in the Louisville City Hospital which caused me to question whether hemorrhages from the ear were always due solely to rupture of the drum. Anatomically we know that the lateral sinus is in close proximity to the mastoid process and middle ear, and that it may be ruptured by a spicula of bone. Usually in cases where there is an oozing from the ears, or a hemorrhage which lasts for a short time and then ceases, it is caused by a rupture of the drum membrane. In the case I have mentioned there was hemorrhage for several days, and I have always questioned whether it did not come from the lateral sinus.

The fractures with which we have to deal are usually those due to direct traumatism, such as puncture through the ear with sharp instruments, and unfortunately these usually occur when there is pus in the middle ear. The usual cause of such wounds, is that people in cleansing the ear with cotton or other material wrapped on some sharp instrument being startled perhaps, they turn around quickly, and the instrument striking against something, is forced through the middle ear into the middle cranial fossa. When the patient reaches the otologist, the wound is nearly always infected, after which we have meningitis and death as a rule.

In this connection, I may be permitted to mention a case where the injury was inflicted not through the ear but through the roof of the orbit. A child while at play had a lead pencil in its hand, and fell, the pencil penetrating just over the eye without injuring the ball, a piece of the pencil remaining in the orbit. The wound was explored and several pieces of lead from the pencil were removed; a few days afterwards meningitis developed and death took place. In such a case as this, I question whether it is not better to leave the foreign body and take the chance of its being incapsulated than to operate as was done in this case and furnish the avenue by which

infectious elements enter the cranium. Judging from the result in this instance, it would seem advisable to allow the original wound to close.

Dr. H. Leavell: The general practitioner in the past has laid too much stress upon trying to make a diagnosis between concussion and compression without an exploratory incision. I do not believe we can have a fracture of the skull without compression, and with this view of the matter exploratory incision is the only thing to be considered. The mortality of primary trephining as stated by Doctor Sherrill certainly shows that the operation is almost entirely devoid of danger.

The question of brain surgery is one of great importance, and I think we can even make the diagnosis as to location of the injury in the cranial vault with more certainty than we can in the abdominal cavity from reflexes which are presented, injury to certain centers producing paralysis of various portions of the body; and I think if brain anatomy and the nervous system were studied to a greater extent, we would be enabled to open the skull not always at the point of the original injury but other situations, and be enabled to evacuate a clot or remove other pathological conditions causing epilepsy, insanity, imbecility, etc., which has been mentioned by previous speakers as occurring after head injuries.

Dr. P. F. Barbour: We general practitioners often see patients soon after blows upon the head have been sustained, and should immediately refer them to the surgeon for operative interference if the injury seems at all severe; we see more of the results of these accidents to the cranium than we do of the accidents themselves. I agree with the opinion expressed by Doctor Sherrill, that wherever you suspect, even if there is only a suspicion of fracture, that the scalp ought to be lifted at the site of the injury to see whether the bone has sustained a fracture. The results of depressed fractures without operative interference are so serious, and the mortality from trephining so slight, that the surgeon should have no hesitation in resorting to operative measures. All of us have seen the results, such as epilepsy, imbecility, etc., following blows on the head. It may be so severe as to produce violent grades of insanity. Even when the bone itself is not depressed there may be a pachymeningitis developed under the location where the blow has been received which will produce constant headache, derangement of the nervous system, etc., therefore exploratory operation should always be insisted upon. I know the teaching in this respect has changed greatly in the last few years. I believe the best plan is to turn these patients over to the capable surgeon and let him operate as soon as possible. It will not do to postpone operation until epilepsy has developed. If the depressed bone is removed immediately after the injury, epilepsy will not supervene; but if you delay operation until after epilepsy has developed, then you cannot promise to cure it by removing the exciting cause.

Dr. A. D. Forsyth: A boy was struck on the head by a negro at 2 o'clock in the afternoon, the weapon used, was supposed to be a club; and the boy was struck, it was thought, on the side of the head. He kept on

about his work until 5:30 o'clock the same afternoon, when he fell, became unconscious, and paralyzed on one side. They telephoned for the hospital ambulance. We went after him, and found he had at that time, stertorous respiration, lying on his back, one pupil dilated, the other contracted. We put him in the ambulance and started to the hospital. We had gone about three blocks, when the boy stopped breathing, and the pulse also ceased. We practiced artificial respiration; his pulse returned, probably reaching 130 to the minute when we arrived at the hospital. The boy died before any operation could be performed.

We held a post mortem the next morning and found a large extradural blood clot, which evidently caused his death. There was no fracture of the skull whatever. I am positive about this, as every part of the bone was critically examined.

Dr. W. B. Gossett: I recall a case seen a short time ago, where I believe if it had been operated upon the patient would have made a better recovery. A man became involved in a quarrel, was hit over the head and knocked down, and rendered unconscious by the blow. He remained in that condition for three hours. A physician was called and he was sent home. I was asked to see him two days afterwards. He was then in a partially conscious condition, and had ptosis of the right eyelid. He complained of pain all the time in the back part of his head, and especially over the right eye. I made a thorough examination of the skull, and Doctor Dugan was called to see the case in consultation, but we found no evidence of a fracture. In the after-treatment of the case I had a great deal of trouble from nausea and vomiting. I tried nearly everything that has been recommended for the control of these conditions, and the only drug I found to be of benefit was cocaine. I kept him thoroughly under the influence of cocaine for three or four days, then discontinued its use, the vomiting returned and I had to resort to the drug again. He had pain over the right eye, and pain in the back of the head continued though somewhat lessened in severity.

I believe now that this man had a fracture that could not be made out by an external examination, or a rupture of a small vessel and blood clot on the brain. He was unable to stand on his feet for quite a long time; I kept him in bed for four weeks; at this time against orders he got out of bed and tried to walk, and immediately became worse. At the end of six weeks he was able to get up and around the room and in two months was out. I believe if an operation had been performed immediately following the injury the man would have made a far quicker recovery.

Dr. J. G. Sherrill: There are a number of distressing conditions which may arise as a result of a blow upon the skull, and the one described by some of the previous speakers is of such a character that it seems difficult for the surgeon to tell exactly what course to pursue and what treatment to institute. We would scarcely be justified in trephining in the absence of symptoms showing presence of a clot or other pathological condition, or without the presence of a fracture after making an exploratory incision through the

scalp, although we might be justified in opening the scalp itself at the site of the injury or elsewhere if it seemed indicated. But after an obscure injury of this character, when symptoms develop in the course of twenty-four hours or three or four days, then the surgeon should resort to complete operative measures. Frequently without any break in the external surface of the skull we find a fracture of the inner table; this fracture may be slight, but it may be sufficient to produce a marked hemorrhage. Symptoms may not develop for some time; usually these patients finally develop epilepsy or some other grave condition. When a fracture of the inner table occurs ordinarily we have a fracture of the outer table, but this is not true in all cases. In all injuries about the skull where you have any symptoms of fracture, an exploratory incision should be made, and if then you find any signs of fracture you should lift the bone and examine the structures beneath, because pressure upon the brain kept up for four to six days will in all probability produce such changes in the brain tissue that it will not expand after pressure is removed; you have a scar formed and the contraction of this new tissue will render expansion of the brain incomplete, and in that proportion the brain tissue will not return to its normal condition. I believe also that this cicatricial tissue is one of the frequent causes of epilepsy; therefore I am very strong in my opinion that these cases ought to be operated upon whenever we have the least suspicion of a fracture; and if we have any other diagnostic signs of a clot without fracture, trephining should be done, the location being determined by localized symptoms, reflexes, etc., in a careful examination of the case.

The Disease of Inebriety.—Of late years the opinion that inebriety is a disease has been so largely put forward that it has, with many, quite obscured the fact that it is also a vice. In common usage the term covers every form and degree of excess in the use of liquor, from periodic dipsomania—which it may be said does not cover every form of occasional spree, as some would have it—to the common besotted habitual drunkard. It, like charity, certainly covers a multitude of sins, and it would be well for us to keep in mind this fact. Only in a small proportion of cases is drunkenness due originally to a disease properly so called. There are very few drunkards who have been irresistibly impelled to their depraved appetites, and there can not be said to be such an overwhelming majority of them who could not reform were they willing to take themselves out of the reach of temptation. They are very largely the victims of vicious self-indulgence, and this fact should not be forgotten or obscured by a theory that they are subjects of disease, which would naturally imply that they were also innocent victims. Many are, it is true, handicapped by heredity or environment, and to that extent they deserve some sympathy, but it should be intelligent sympathy, not the kind that ignores facts and perverts conduct. One of the worst effects of this popular notion that inebriety is a disease is its encouragement to quackery. The numerous "gold" and other cures are the direct results of this notion, and their too often ultimately damaging effects are one of its consequences. It would be well for medical societies that are called on sometimes to endorse the views of the pathologic nature of inebriety to bear in mind these aspects of the question.—*Jour. A. M. A.*

Report of Case of Elephantiasis.

By ALBERT ANDERSON, M. D., Wilson, N. C.

FRANKLIN VOSCO EDGERTON, subject of this sketch, was born Oct. 28th, 1888. His photograph was taken to send to your JOURNAL because of the rarity of his disease. We have named it elephantiasis more from the general resemblance to that disease than from the elephant condition of the skin.

Acting upon the suggestion of Dr. J. Howell Way that his photo would be of interest to the profession (Dr. W. having read a notice of the case in the *Wilson Times*), I invited Mr. G. V. Lewis, our leading artist, about a month ago, to go with me to the boy's home to take his picture. We found him willing and anxious to have his photo taken.



The following history was given : He was a healthy child and remained so till seven years old. Three and half years ago an aching commenced in the calf of his left leg and the pain continued about a year without visible change in the contour of the leg. Then a small lump appeared in the calf and began enlarging in all directions, and this continued until the leg is as seen in the photo. Measurements of the leg are as follows : Circumference just below the knee joint $25\frac{1}{2}$ inches ; just above ankle joint, 22 inches ; from knee to ankle joint, 14 inches. The boy measures 22 inches around the waist.

At first paroxysms of pain came on at intervals of a week. Pain now is almost continuous. He has what he terms "cramping spells," which are relieved by rubbing with camphor. While in the greatest pain the blood vessels can be seen to fill and throb. He suffers with indigestion. Some of his father's ancestors died of cancer. His mother's parents had consumption.

The Treatment of Gonorrhœa—With Clinical Reports.

By ROBERT C. KENNER, A. M., M. D., Louisville, Ky.

THE prevalence of gonorrhœa and the serious results which follow in its train make it an affection of the greatest importance. In fact, it has only been a short while comparatively, that the profession in general has comprehended the nature and seriousness of gonorrhœa.

Impotence and stricture in the male, and salpingitis and other serious conditions in the female, are results of gonorrhœa that are encountered daily by the medical practitioner.

In the treatment of gonorrhœa, the manifest aim of all treatment consists in the administration of such drugs as will relieve the painful conditions and those which tend to abbreviate the duration of the gonorrhœal process.

In carrying out the *first* indication—that of relieving the painful conditions, we will employ remedies that render the urine alkaline, and those which act favorably in overcoming the local inflammatory trouble.

For the first four or five days, or a week, the highly inflamed condition of the urethra will make micturition most painful (*ardor urinæ*). This can be best relieved by the internal administration of alkaline diuretics, and the regular bathing of the penis in warm water.

Erection is attended with great pain (*chordee*) with these patients, and in connection with the alkaline diuretics should be given some antiaphrodisiac. In this way we avoid not only the scalding of the urethra, but keep down painful erection. Camphor is a most reliable antiaphrodisiac, and it can be given along with the acetate of potass. Acetate of potassium has long been a favorite alkaline diuretic with me.

The following prescription generally acts well in my hands in rendering the urine alkaline, and at the same time it is sufficiently antiaphrodisiac:

R Potassii acetat ʒ ss.
Aquæ camphoræ ... ʒ x.
Aquæ puræ..... q. s. ad. ʒ vj.

Sig. Tablespoonful every three or four hours, as the *ardor urinæ*, or the *chordee*, may or not be urgent.

Another matter of great importance to be employed for the relief of the local inflammation is the regular submersion of the penis in water as hot as can be borne by the patient. The patient is directed to get a small tin bucket and heat some water in it and let the penis be submerged in this for twenty or thirty minutes at a time, three or four times a day. Some patients cannot bring this to bear in their treatment, but when it can be done the patient is greatly benefited.

The patient should eat a bland, unstimulating diet, and avoid liquors of all kinds.

These measures comprise the best means I have tried for the treatment of the primary or purely inflammatory stage of the affection.

They will, however, be of little avail to us, in abbreviating the duration of the disease. I may also say that their employment will not be called for after that period where the pain is the leading issue has passed.

In carrying out the *second indication*—that of administering remedies which will abreviate the duration of the disease, we will find medical literature full of remedies which have been lauded as specifics.

One of the commonest means of treatment consists in the injection into the urethra, by means of a syringe, of some such drug as sulph. zinc, permang. potass., bichlor. mercury, or other agent.

A long experience has convinced me that injections of any kind do not tend to abreviate the duration of gonorrhœa, but on the other hand they tend to make the case worse.

The introduction of any instrument in the urethra will produce irritation, and very often instead of producing a cure, the regular introduction of a syringe will keep alive a gonorrhœa. It is a common thing to see a protracted attack of gonorrhœa get well when the injections are discontinued.

Reason is also against these injections. The gonococcus, as is well known, resides deep in the urethral substance, and is beyond the reach of any injection. It matters not how deadly an injection may be, it cannot reach the gonococcus, and it is therefore useless for that purpose. This fact is one which is undisputed by the best observers in the field of genito-urinary surgery.

I have come now to rely entirely upon internal remedies to abreviate the duration of attacks of gonorrhœa.

The experience of the profession for years has been that santal oil is a remedy for gonorrhœa which will bring good results.

For some time I have depended upon saw palmetto and santal oil in combination. I begin with this remedy immediately after the inflamed painful stage has disappeared. I exhibit these agents in the form of globules, saw palmetto and santal oil (P. D. & Co's.). These I give in doses of one or two globules four times daily. Given this way to a patient who will follow directions as to diet, abstinence from sexual intercourse, etc., I have found it possible to easily bring the disease to a favorable termination in from two to four weeks.

Below I give the clinical histories of several cases which have yielded to this treatment. Those of course are only a few of some fifty cases of which I have notes :

Mr. Y., age 26. This patient applied for treatment for gonorrhœa on the 1st of April, 1899. He had just seen the first symptoms, and was suffering with painful micturition, etc. I gave him the prescription for acet., potass., camp., etc., and told him to submerge his penis three or four times daily in hot water.

On this he got along well, and after the fifth day his discharge became

copious, and the inflammatory stage was not troublesome. I put him on globules, saw palmetto and santal oil (P. D. & Co's. after each meal and on going to bed.

He took his medicine regularly and observed my directions faithfully.

He got along so well that the discharge ceased altogether after the twenty-first day of treatment. He has had no relapse or anything like a gleety morning drop or any trouble.

Mr. Sam C., age 30. This patient had been treated with various injections, emulsions, and so forth, by several physicians, but had not obtained benefit although he had had the disease for six weeks. He was at once put on globules saw palmetto and santal oil (P. D. & Co's.)—two, four times daily. On this treatment he began to improve appreciably after the fifth day. Two weeks further employment of this remedy found this patient getting on well—having no discharge, and he has had none since.

Mr. Orllie, age 33. This gentleman, a married man, contracted gonorrhœa while his wife was away from home. He applied for treatment, saying that he was in distress for fear he would not be well against her return home.

The inflammatory stage was not marked, and did not continue longer than two days.

After this he began with the globules saw palmetto and santal oil, (P. D. & Co's.) as in the above case. This man did nothing that would aggravate his case, and never failed to take a dose of his medicine. He had entirely recovered in twenty-seven days from the inception of treatment.

Mr. Abraham L., age 31. This man had been suffering for three months with gonorrhœa—having taken all the usual remedies, injections, etc. I had him discontinue all these and take only the (P. D. & Co's.) globules of saw palmetto and santal oil.

On this treatment he got along well and I discharged him eighteen days later, cured—and he has had no symptoms, such as gleet, since—after a lapse of several months.

Mr. Z., age 22. This patient had passed the initial stage and was now in the second week of the disease. On the globules of saw palmetto and santal oil he got on well and ceased to have any discharge after the fourth week.

Chicken Bones and Other Foreign Bodies in the Rectum.

By DR. K. G. AVERITT, Cedar Creek, N. C.

IF you will kindly give me space in your valuable JOURNAL, I will report the two following cases:

1st. Some time about the first of July, this year, Columbus W., colored, came to my office and stated that he had not had a good action from his bowels in several days, and that he was suffering so much pain that he could not sit down. I introduced my finger into the rectum and about three inches

from the anal orifice found a bone about one inch long situated transversely across the rectum. I removed it, with the results that the symptoms immediately ceased and his bowels acted freely.

2d. On the 3rd inst., I was called by a very competent physician to see Mrs. S., a widow lady, about 70 years old. He had been treating her for some time previously for indigestion, disordered liver, etc., and called to see her that morning, when he found her suffering great pain from impaction of fæces, due to stricture four or five inches up the rectum. He found it impossible to pass the stricture, and administered an opiate to relieve pain and sent for help. Upon examination, I found his diagnosis correct. We placed her across the bed and I gave chloroform and he tried to pass the stricture, but owing to the fact that his hand and fingers are very large, failed in the attempt. He then took charge of the chloroform, and as my finger is much smaller than his, I attempted to pass the obstruction. I succeeded in a few minutes, and as soon as I got my finger through the stricture, I found a chicken bone, which I removed, and continuing my efforts at dilatation, removed four others averaging from $\frac{3}{4}$ to 1 inch in length. As soon as I removed these, her bowels began to act freely, and I saw several water-melon seeds pass, and I am satisfied more bones came away, but there was so much fæcal matter I did not search for them. The patient obtained relief at once, and I am informed by her physician, is doing well.

These cases are of interest, as they show how foreign bodies can pass through the alimentary canal and then become lodged almost at the point of exit.

SELECTED PAPERS.

We Have Tried Them.

BY M. G. PRICE, M. D.

[Louisville Journal Sur. and Med.]

Possibly not every physician keeps a commonplace book where he writes down items that will answer some good purpose hereafter, or perhaps it is a bit of experience that will thus be preserved for future reference; but it has always occurred to us that it was the proper thing to do.

On a shelf before us is a book of scraps gathered from many sources, carefully pasted in and laboriously indexed, forming a valuable formulary. In our pocket we carry a small book that we picked up somewhere, that is a complete and valuable materia medica and therapeutics. Here and there in it we find blank leaves most agreeably interspersed. On these leaves we are accustomed to write whatever occurs to us as useful. Some of these things we want you to read. We take them at random from the book:

For abscesses, take boric acid and acetanilid, equal parts, and glycerine to make a thick paste; spread on a soft cloth and apply.

Hyoscyamin is a grand drug in convulsive and spasmodic conditions,

and we want to know how to administer it to children. Take this little schedule :

Age.	Granules 1-250 gr.	Aqua.
1-3 months.	1	3 24
3-6 "	2	3 24
6-9 "	3	3 24
9-12 "	4	3 24
24 "	6	3 24
48 "	10	3 24

Twelve years, one granule every fifteen to thirty minutes until dilatation of pupil.

Bronchitis (acute), take $2\frac{1}{2}$ grains of acetanilid, $2\frac{1}{2}$ grains of salol every few hours. By this means I have frequently aborted this trouble in my own case.

For gastric catarrh, sodium salicylate is invaluable.

We sometimes wish to abort an oncoming chill in a patient; fifteen or twenty drops of chloroform may succeed—if not, we may try atropine or glonoin.

A cold in the chest with tightness and dry hacking cough may be greatly remedied by giving apomorphin and potassium bichromate.

A cold is sometimes aborted by

Tr. gelsemium gtt. x.

Dover's Powder.....gr. v.

Every two hours.

Who of us has not been besieged by weary mothers for something for her crying infant that is suffering with three-months colic. Hyoscyamin is the drug.

I want to add my testimony to the efficacy of iodide of lime (the brown article) in croup. It will cure it.

Minute doses of cresote in glycerin is the equivalent of antitoxin.

Nitro-glycerin is a giant in dysmenorrhea, $\frac{1}{250}$ grain every fifteen to thirty minutes until physiological effect.

Drop doses of tincture cantharides will be found effectual in irritable bladder with women with frequent desire to micturate. Gelsemium also said to be good.

Don't fail to use turpentine in hemorrhage. Must be given in large doses—one to two drams without dilution in emergencies.

In two cases of pneumonia we have met with hiccough that lasted for four or five days. We found

R Strychnia.....gr. 1-40

Camphor mon.....gr. $\frac{1}{2}$

Hyoscyamin gr. 1-50

Glycerine and chloroform and hot infusion of capsicum were tried as well a hypodermic of morphia. The first prescription as well as the morphia succeeded.

More Accurate.—"Will one in the class," asked the teacher of rhetoric, "give a better form to the sentence, 'John can ride the mule if he wants to'?" "John can ride the mule if the mule wants him to," said the boy with the bad eye.—*Chicago Tribune.*

An Organic Compound of Silver Nitrate.*

By GEO. H. STUBBS, M. D., Birmingham, Ala.

[The Alabama Medical and Surgical Age]

The progress for the past year or so in therapeutics has been marked by that development of former knowledge which is of lasting value, rather than by brilliant achievements which are so often intimately disappointing. It is, therefore, with a feeling of reluctance that I call attention to the new product to which I will briefly refer, fearing that this remedy, like many others, will for awhile flourish like the green bay tree; but, after being weighed in the balance and found wanting, will be banished to painful oblivion, and find its place beside the many thousand remedies long since given up, lost and forgotten.

The year 1898 gave us several new remedies, most of which no doubt originated in the fertile brains of aspiring synthetic chemists. All more or less possess new claimants for favor—perfect substitutes for something, thoroughly reliable and harmless, etc.

It is needless to say that organic chemistry has furnished the most fruitful field, and the hydro-carbon group, with its myriads of known and unknown combinations, furnishes unlimited resources for experiments. The coal tar products are still interesting the minds of these men, and what the future will bring forth no one can tell, but that there will be a great many—some good, and some bad, and some very bad—no one will doubt; at least, judging from the past, this is what we may expect.

I will refer by name only to some of the new remedies appearing in 1898, with the exception of animal extracts and blood serums, as follows: Acetylene, Ammonal, Analgene, Chloralose, Cammeline, Digitaxine, Dulcine, Eosote, Enchinine, Ferrosyptine, Formopirine, Glutol, Hemol, Hotzinal, Malarin, Orphol, Pelletine, Pyramidon, Pyrantin, Salacetol, Samofom, Trammatol and Tannoform. The majority of these are synthetical products manufactured to take the place of some older and efficient remedy, however disagreeable, of which few, if any, will gain the relative favor of iron, quinine or strychnine.

The year book of medicine and surgery for 1899 will contain many new remedies seeking admission, and recognition. Among them will be Protargal, another substitute for nitrate of silver, which seems of have met with general acceptance among the medical fraternity, and of which I will have a few words to say at length, regarding its physical appearance, behavior, therapeutic value, and mode of application.

Protargal is a preparation of silver with a proteid base. It occurs as a yellowish brown powder readily soluble in water, forming a clear solution in strength to 50 per cent. The solution is neutral in reaction, and unaffected by exposing it to air, heat or light. It also dissolves completely in albumin solution, sodium chloride and glycerine, and is not precipitated by dilute

*Read before the Jefferson County Medical Society, July 24, 1899.

hydrochloric acid, alkalies or sulphides. The powder contains about 8 per cent. of free silver, while argonin, another somewhat recent product, contains about 4 per cent. Argonin is a fine, white powder, soluble in water on gentle warming, forming a murky, milk-like solution, and is decomposed by heat or light, and does not keep well even in dark glass bottles. The silver in these preparations is not present in the form of salts, but in organic combination which proposes to preserve the therapeutic action of the drug when locally applied, and at the same time has the irritating properties of the nitric acid eliminated. Professor Neisser, one of the most noted genito-urinary specialists, first introduced nitrate of silver for the purpose of destroying gonococcus, which for a long time has been a favorite means with many surgeons for the treatment of gonorrhea. The only difficulty has been that the action of the drug is only superficial, owing to the fact that it forms insoluble combinations with albuminous substances, while a deeper penetrating effect is desired. The salts of silver are very irritating to delicate and inflamed mucus membranes, necessitating low percentages of strength. This, in connection with its limited penetrating power, caused Crede to first make the suggestion of preparing an organic compound. Since that time, synthetic chemists have endeavored to prepare a silver combination free from the disadvantages above mentioned. As a result, they have obtained, among many others, protargal, and to judge from the continued favorable reports, this product has established a reputation as a destroyer of the gonococcus, and a most valuable remedy in the treatment of acute and chronic gonorrhea, and gonorrheal ophthalmia, and other acute and chronic affections of the mucus membranes, due to gonorrheal infection. Personally, I have had but little experience with argonin, and only a limited amount with protargal, having had to confine its use entirely to the field of ophthalmology. In regard to its use in the treatment of urethritis for which it was first intended, I will have to quote from the experience and printed reports of others.

The medical journals for the past year have been flooded with clinical data, comments all more or less favorable to the use of protargal in cases where silver nitrate was formerly used. These reports are so numerous that it would be a matter of impossibility to epitomize. Possibly no new remedy in recent years has received such general attention, and it is unfortunate that the firm manufacturing this article has seen fit to use this matter for the purpose of advertising it to the profession. Investigation has shown that this agent has the power to arrest the growth and destroy bacteria; one per cent. solution kills anthrox and typhoid bacilli, bacterium coli and pneumococcus after short exposure. The power of destruction being greater when the germs are in an albuminous media, anthrax spores were destroyed after an hour's exposure, but staphylococcus pyogenes, aureus and albus proved to be less readily affected than other bacteria.

I beg to extract from the *Year Book of Medicine* as follows :

"Regarding the toxic properties of the drug, when injected subcutaneously and instilled into the eyes of rabbits, local irritation follows. Benaria

uses the drug in the treatment of gonorrhea in the male in solutions of 3 to 1-5 per cent. strength. He begins with the weaker solutions, and gradually increases the strength. The usual result is that the discharge diminishes rapidly, and the gonococcus disappears in about fourteen days."

Besides its usefulness in gonorrhea, he has found it a good antiseptic in infected wounds and small abscesses. Neisser reports most favorably on protargal in gonorrhea. He begins early with 1-4 per cent. and gradually increases up to 1 per cent.

I was for some time reluctant and feared to experiment with this drug in such a grave disease as purulent ophthalmia, especially while silver nitrate has proven so satisfactory since its introduction by Crede. I finally yielded, and am able to report a most favorable result in two cases of purulent ophthalmia in the new-born. As compared with silver nitrate in similar cases, the pus secretions and inflammatory process disappeared earlier and left the conjunctiva and cornea uninjured. In one case the discharges disappeared in fourteen days; in the other on the twenty-second day, against the average time under nitrate of silver being four or five weeks. The strength used varied from 10 to 50 per cent., the latter being the saturated solution. In neither case was a microscopical examination made, but the type was typical ophthalmia neonatorum, and the evidence was in favor that the mothers had been infected. These cases were seen early in the disease, and before there had been any laceration of the conjunctiva or corneal ulcers.

On a recent visit to New York, I made special inquiry among my confreres regarding their experience and opinion of protargal. I found them somewhat divided as to opinion, with no doubt of its ability to stop the discharge and cause disappearance of the gonococcus in the shortest length of time, but that it seems to predispose to softening and sloughing of the cornea in some advanced cases. If this is true, it is a serious objection; but I had no such occurrences in my cases, and regret that the field here is so limited, for cases of this character are few and far between, and I have not been able to obtain a more extended experience. The comparatively few cases in this immediate territory is no doubt due to the care and prophylaxis of the family physician, both during and immediately after parturition. When it does occur, we have a hard fight to make; if we fail, we lose a patient, and the State gains a burden for life.

I have used protargal in other catarrheal conditions of the eye, when nitrate of silver was formerly used, both in acute and chronic affections of the mucus membrane with very satisfactory results. None of our patients like to be hurt, and the least pain and inconvenience you give, the results being equal, the better they like it. I have found the remedy specially useful and effective in diseases of the lachrymal apparatus, in three aggravated cases of dacryocystitis. It caused little or no irritation, and a rapid disappearance of the pus. When injected into the sac, it penetrates deeply into the tissue and can be tasted several hours after being injected through the lachrymal canal into the nose. I frequently use it as a collydium in chronic

conjunctival catarrh in from 1 to 3 per cent. solutions. It does not irritate the eye, and causes a fairly rapid absorption of the thickened conjunctiva, with relief of symptoms.

In conclusion, the advantage it possesses over nitrate of silver, from the experience of myself and others is, that it keeps well when in solution; it is not affected by light; it does not irritate the mucus membrane; it can be used indefinitely. I sincerely hope that this new remedy will stand the tests of time. My only regret is that the manufacture of the article is controlled by a single firm.

Improvements in Army Medical Service.—Experience in the late war has suggested marked improvements in army medical service, which are summed by Devine, in *Boston Med. and Surg. Bulletin*, in the following paragraphs:

1. Physical examination of recruits; at first voluntary and now made mandatory.
2. Ration to be used at camp. Something after the pattern of army ration, but modified for adaptation to State service.
3. School for medical officers. One session annually.
4. Company bearers, four privates in each company specially trained in emergency and first-aid work.
5. System of red tape patterned after regular army, but modified for State service.

The following is a brief résumé of the suggestions offered to improve the efficiency of the army medical service. Some of them have been practically adopted by the Massachusetts Volunteer Militia, and it is hoped will be adopted by the entire National Guard:

1. That professorships of military medicine be established in every reputable medical college.
2. That until such time as professorships are established, the State provide a course on required subjects.
3. That physical examination of officers and men be made mandatory.
4. That troops at State encampments conform as nearly as possible to duties required in service on the field.
5. That every medical officer receive commission. (This pertains to contract surgeons.)
6. That one or more men in every company be detailed for regular instructions in ambulance corps, to prevent possibility in the future of the country losing the service of men especially trained for this service.
7. That one medical officer be selected in each regiment or brigade for his surgical ability.
8. That a corps of trained female nurses be organized in every State.
9. That divisional hospitals, in the broad sense, be abolished, and that small brigade and divisional hospitals be established for special cases, such as surgical and contagious.
10. That the volunteers follow, as closely as practicable, the regular army, so that when called into service together the two branches may work in harmony.
11. In addition to the present instruction in "first aid," a course in prevention of contagious diseases, etc., be given.
12. That a reserve staff of medical officers be formed in each State; said staff to be composed of ex-members of the medical department of the National Guard.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.
Editors and Proprietors.

W. H. WAKEFIELD, M. D.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.

J. HOWELL WAY, M. D., Waynesville, N. C.

J. ALLISON HODGES, M. D., Richmond, Va.

S. WESTRY BATTLE, M. D., Asheville, N. C.

GEO. G. THOMAS, M. D., Wilmington, N. C.

J. F. MONROE, M. D., Davidson, N. C.

R. L. PAYNE, M. D., Norfolk, Va.

H. S. LOTT, M. D., Winston, N. C.

J. W. LONG, M. D., Salisbury, N. C.

H. A. ROYSTER, M. D., Raleigh, N. C.

ALBERT ANDERSON, M. D., Wilson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

THE CALIFORNIA QUARANTINE AGAINST CONSUMPTIVES.

The California State Board of Health has taken a step, which if enacted into a law, will make it more difficult for consumptives to find a haven of refuge in the genial climate of that great State. As is well known, the Pacific slope furnishes an asylum for many thousands of tuberculous individuals, 20,000 entering California in one year, so it is stated; and the growing conviction of the contagiousness of this disease has apparently aroused a dread upon the part of health officials, and no doubt also in the public mind, that the yearly influx of so large a number of tuberculous subjects scattering the germs widespread throughout the confines of the State will in time render this salubrious country a hot-bed of phthisical infection. Theoretically it must be admitted that there is some ground for fear, it having been shown that communities once almost entirely free from consumption have had their apparent immunity destroyed by the importation of diseased persons; the natives being infected by the visitors. As a result of practical experience, it has been claimed that in Colorado, for instance, the sections frequented by consumptives have not shown an increase of indigenous cases of tuberculosis, and that contagion from contact is quite rare. On the other hand California, which, it might be supposed would normally show a very small tubercular mortality, is credited with 2.39 per 1,000 of population by the last census report; almost as great as the same census gives for Massachusetts, viz: 2.67 per 1,000. Of course to form a fair conclusion from these statistics it would be necessary to know what proportion of the consumption mortality in the former State was indigenous.

The question of the possible infection of a certain area of country largely

frequented by tuberculous subjects possesses a local interest for physicians of this State, since Western North Carolina is becoming increasingly popular as a resort for the victims of pulmonary troubles. Undoubtedly climatic conditions and environments have much to do with the probability of such a danger as the California Board of Health seems to anticipate, and as yet our phthysical death rate (1.37 per 1,000 population), does not exhibit an abnormal mortality from this cause.

THE PREVENTION OF NAUSEA AFTER GENERAL ANÆSTHESIA.

Of the disagreeable after effects of general anæsthesia, perhaps none are productive of more discomfort to the sufferer than the nausea and vomiting. The various expedients which have been resorted to for its relief have, as a rule, resulted in such lamentable failures that we have gotten into the habit of telling the patient that it will have to "wear off" of itself. Ether has the unenviable reputation of being more frequently followed by this annoying symptom than has chloroform, and no doubt merits this position; but nausea and vomiting are a sequel of chloroform inhalation sufficiently often to make a reliable preventive highly desirable. It is claimed by the advocates of the Schleich methods of administering various ethereal mixtures combined with reference to their relative degree of volatility, that gastric disturbance is quite uncommon.

Reports do not entirely bear this claim out, either as regards the absence of nausea, or the greater safety with which the mixed anesthetics may be used. A much simpler plan for the prevention of nausea is the immediate inhalation of vinegar after the anæsthetic is discontinued, as first advised by Mackenrodt. The vinegar method has been quite extensively used in this country, and with varying results. Dr. Samuel Edwards, of the Bay View Hospital, Baltimore, Md., in a recent communication commends it very highly, not only for the sick stomach, but as alleviating the intense thirst so often present after serious operations. In the experience of the hospital mentioned, extending over a period of four years, it was successfully employed in 97 per cent. of the cases.

The beneficial effect of the vinegar in chloroform vomiting is explained by the action of acetic acid upon the free chlorin, one of the products of chloroform, which is very irritating to the mucus membrane of the pharynx, thereby inducing vomiting. In ether anæsthesia, where it is equally effective, the natural secretions of the air passages are stimulated and the fumes of the vinegar are supposed to have a soothing influence upon the peripheral nerves of the parts, lessening the irritability of the pneumogastic. However much the above explanations may explain its action, we must confess that after trial the inhalation of vinegar has not realized expectations, although it must be admitted that its administration may not have been persevered in a sufficient length of time, it being recommended that the inhalation be kept up continuously for hours.

A SLIGHT CORRECTION.

In the issue of September 20th, an editorial upon "Prof. Sanarelli and the Newspapers" appeared, in which reference was made to other prominent scientists who had not acted creditably from a professional and ethical standpoint. By error of the proofreader, the name of Behring was omitted in connection with the patent on antitoxine, the paragraph as printed making it appear that Koch had sought a protection upon his process of producing antitoxine, whereas, of course, Behring was referred to.

Carbolic Acid in Tetanus.—Dr. Horatio C. Wood (*Merck's Archives* 1899, Vol. I, No. 5), describes Baccelli's method of using carbolic acid in the treatment of tetanus, as follows: If the tetanus is of traumatic origin, the wound is thoroughly cleansed with antiseptic solution (either corrosive sublimate or carbolic acid); the patient is placed in as quiet an apartment as can be obtained; the ordinary rules of diet, etc., are to be carried out, and subcutaneous injections of a two per cent. solution of carbolic acid given at two or three hour intervals. If the case is one of only moderate severity, commencing doses of about 0.20 gm. (3 grains) in the twenty-four hours may be used. This dose should, however, be rapidly increased to at least double or triple the quantity.

It is remarkable what heroic doses of carbolic acid tetanus patients will bear. Although Schmiedeberg puts the maximum daily dose at 0.50 gm. and Jaksch mentions a case in which 1.0 gm. caused death, in tetanus doses of 0.72 gm. per diem have been injected hypodermically with no smokiness of the urine, nor other sign of poisoning; and one case is recorded in which 3.0 gm. (45 grains) were given in the twenty-four hours, with smokiness of the urine, but apparently no more dangerous symptoms, the patient recovering from both the disease and the remedy. Along with the carbolic acid, other remedies, as morphine or chloral, may be given, as thought necessary.

In comparing the results obtained by the use of carbolic acid, of Behring's antitoxin serum, and of Tizzoni's serum, Ascali records in his tables, thirty-four cases by Baccelli's method, with but one death; twenty-eight cases by Behring's serum, with ten deaths; and forty-two cases by Tizzoni's serum, with seven deaths.

These tables give the antitoxin treatment a lower mortality than most authors, the various estimates ranging from 25 per cent. to 40 per cent. mortality. Nevertheless, the carbolic acid far surpasses (statistically) the serum treatment in life-saving power.

Ascali claims for carbolic acid that it causes no secondary symptoms, which can hardly be said of the antitoxin, and that it is cheap and readily obtained.

R. L. F.

The Treatment of Nasal Hydrorrhœa.—M. Lermoyez (*Progres Medical* June 10th) recommends that during the first week the patient should take daily about one two hundred and sixtieth of a grain of sulphate of atropine and a thirty-fifth of a grain of sulphate of strychnine. During the following week this dose may be doubled, and, says the author, even tripled in the third week. A cessation for ten days is then counseled, after which the course may be renewed.—*N. Y. Med. Jour.*

Book Reviews.

The Treatment of Pelvic Inflammation Through the Vagina.—By William R. Pryor, M. D., Professor of Gynecology, New York Polyclinic; Consulting Surgeon City Hospital; Visiting Surgeon St. Elizabeth Hospital, New York City—With 110 illustrations in a volume of 248 pages. W. B. Saunders, Medical Publishers, Philadelphia. Price \$2.00 net.

The volume embodies the teachings of the author at the New York Polyclinics. Dr. Pryor gives his personal views upon the treatment of pelvic inflammation in its various forms, views which he carries out in practical work. As is stated in the preface of the present work, a great confusion exists in the professional mind as regards the treatment of pelvic inflammatory lesions, here we have the individual opinions of the writer clearly set forth, devoid of any prolix discussion of doubtful points. The author's well known preference for the vaginal route in the operative management of pelvic inflammations is openly stated and the spirit predominant throughout the book is one of aggressive interference, although a palliative line of treatment is laid down for each disease.

We can especially commend the painstaking care with which the various modes of treatment are described, nothing that conduces to a proper understanding of the text, or necessary to success in treatment being considered too insignificant for careful mention. Thus, the last portion of the book is devoted to short but concise direction concerning the complications likely to arise; the management of secondary hemorrhage; the intravenous injection of normal salt solution, instruments, sterilizing, etc. The illustrations are especially fine and the publisher has as usual produced a volume of excellence.

Electro-Hemostasis in Operative Surgery. By ALEXANDER J. C. SKENE, M. D., LL.D., Professor of Gynecology in the Long Island College Hospital, Brooklyn, N. Y.; formerly Professor of Gynecology in the New York Post-Graduate Medical School; Gynecologist to the Long Island College Hospital; President of the American Gynecological Society, 1887; Corresponding Member of the British, Boston and Detroit Gynecological Societies, of the Royal Society of Medical and Natural Sciences of Brussels, of the Obstetrical and Gynecological Society of Paris, and of the Leipzig Obstetrical Society; Honorary Member of the Edinburgh Obstetrical Society; Fellow of the New York Academy of Medicine; ex-President of the Medical Society of the County of Kings; ex-President of the New York Obstetrical Society. D. Appleton & Co., New York, 1899. Price \$2 00.

Since the method of treating the ovarian pedicle by means of the electro-cautery was introduced by Keith, the subject of electro-hemostasis has been one of interest to the profession. The present volume, dealing with its employment in general and special surgery, is a supplement to the third edition of the author's work on diseases of women, and embraces a consideration of a number of new appliances and improvements in technique, which are the results of a more extended experience. It is well illustrated and written in a clear and graphic style. To the physician desiring to post himself upon this subject the work is most heartily commended.

Schleif's Materia Medica and Therapeutics. A Manual of Materia Medica, Therapeutics, Medical Pharmacy, Prescription Writing and Medical Latin. For the use of Students and Practitioners of Medicine. By William Schleif, Ph. G., M. D., Instructor in Pharmacy in the University of Pennsylvania. In one very handsome 12mo. volume of 352 Pages. Cloth, \$1.50, *net*. Lea Brothers & Co., Philadelphia and New York.

This excellent little volume is one of "Lea's series of Pocket Text Books," and affords a concise, systematic and up-to-date manual of Materia Medica and Therapeutics.

It will be of great service, as a ready reference, to the practitioner ; and is well adapted to the use of the medical student.

In addition to the paragraphs covering the Physical Properties, Physiological action, Therapeutics, and Toxicology of each medicinal agent, chapters are also found on Prescription Writing, Medical Latin, Medical Pharmacy, Practical Anesthesia, and Dietetics. The volume is concluded with Tables of Doses, of Poison and Antidotes, and Incompatibles. R. L. F.

Aneurism of Aorta in a Child.—Dr. Bertram Rogers (*Pediatrics*, 1899, Vol. VIII, No. 4) reports a case of aneurism in a child 10 years of age, which is of extremely rare occurrence.

On her admission into the hospital, her parents stated that she had been ill with heart disease for six months. There was no history of rheumatism, chorea, or scarlatina. She was very anemic, and a loud, rough, systolic murmur could be heard all over the cardiac area, being loudest over the pulmonary region ; a very distinct fremitus could be felt where the murmur was loudest. The heart's apex was displaced one inch outward. The other organs appeared to be normal.

The progress of the patient differed from any case of ulcerative endocarditis. The temperature was constantly raised, and no drugs seemed to have the slightest effect in reducing it. The murmur increased in intensity, being at times best heard over the aortic and at others over the pulmonary cartilage. The urine was normal, and at no time did any portion of the valves become detached in the blood stream.

About three months after her admission the child died suddenly of cardiac failure. The post mortem revealed the following conditions :

The pericardium contained some fluid, with flakes of recent lymph in it, and there was slight roughening of the visceral pericardium. The left ventricle was greatly hypertrophied, the aortic valves adhered together with large vegetations. About half an inch above the right side of the anterior semi-lunar valve of the aorta was a rugged hole about two-thirds of an inch long, passing upward in the direction of the artery. This was the opening of a small aneurism, which passed forward and appeared between the tip of the right auricle and the pulmonary artery in the auriculo-ventricular groove. The aneurism was about the size of a cob-nut, but appeared to be partially filled with clot. No disease was found in any other organs of the body.

R. L. F.

The Via Vitæ.—The *Medical Dial* for March cites the following :

"There are so many perils between the cradle and grave that it is a wonder that a man ever gets from one to the other," said an Irishman.

[He wouldn't if it were not for woman.—Ed. *New York Medical Journal*.]

[No, he would never get to the cradle without her.—Ed. *St. Louis Clinique*.]

"I don't see how it happens that you get the start of your business rivals so often," said the man to the prosperous undertaker. "Why, you must have nearly double the trade of any of the others." "Guess I do," said the man of caskets, frankly, "guess I do. Of course, mum is the word, but the fact is Dr. Cutter always gives me a tip when he is going to dig for appendicitis—and I'm invariably the first man to apply for the job."—*Cleveland Plain-dealer*.

Review of Medical and Surgical Progress.

Hydrophobia A Disease Easily Cured.—Dr. Benerly Oliver Kinnear (*Medical Record*, 1899, Vol. 56, No. 4) says, the testimony of symptoms in all the stages of hydrophobia, denotes nervous disease predominantly; while the injected conjunctivæ, the full strong pulse, the delirium and maniacal tendency, the hypersensitive retina and death by coma or convulsions, all signify to the writer a condition of hyperemia of the central nervous system.

The author during the past eighteen years has speedily subdued delirium tremens, acute mania and uræmia temporarily, by contracting the arterioles in the spinal cord and brain and making the general circulation active. Many cases of hysteria can be rapidly cured by expanding the general circulation, thus inducing good nutrition of the body, and at the same time withdrawing the excess of blood from over-stimulated nerve centres.

According to this evidence, then, hydrophobia may be due either to a poison absorbed, or it may be caused by constant direct irritation carried from the seat of the bite to the central nervous system, giving rise to hyperemia of nerve centres, and thus an increased function or abnormal action upon their part, inducing thereby all the symptoms of hydrophobia. The fact that there are in many reported cases and among the early symptoms, itching, pain, and heat at the seat of the bite, would tend to confirm the hypothesis that from the time of the bite by the dog there had been more or less constant direct irritation carried to the central nervous system. But the apparent truth which is brought out by the foregoing, to my own mind, is, that in all nervous forms of disease the main factor inducing the symptoms is active hyperemia within, and therefore excessive function of central nerve cells.

Does the pathology of hydrophobia bear out the above conclusion? The post mortem examination in man shows general congestion in nerve centres, and softening around the spinal cord.

Keisle says that the lymph glands are always enlarged in rabies. The under surface of the medulla is very vascular, the gray matter of the cord is hyperemic, the larynx is red, the spleen is dark red, the liver is congested.

There is also hyperemia of mucous membranes and of many organs and glands, which, in the author's opinion, may be due to excitement or hyperfunction of the vaso-dilator nerve centres, and that when conditions of hyperemia or inflammation are shown by post mortem demonstration to have existed during life, it is a proof that vaso-dilator nerve centres distributed to the part affected are hyperemic, and therefore, abnormally active.

The author draws the following conclusions: (1.) The majority of the symptoms denote central nerve cell excitement. (2.) Others testify to the writer, after many years of treatment of nervous diseases and conditions, that there is hyperemia of the brain and cerebral nerve centres. (3.) Treatment which will draw excess of blood from nerve centres, and at the same time make an active systemic circulation will subdue and cure nervous diseases, whether caused by poison absorbed, by terminal nerve irritation, by worry, pain, or over-exertion, mental or bodily. (4.) Pathological conditions evidence hyperemia of the brain and cerebral nerve centres, as well as hyperemia of organs and tissues, which may be due to the same central nerve excitement.

The author advocates the "Buisson" bath treatment. As an illustration of this method of treatment, Dr. P. Canitz, of New York City, reports five cases of hydrophobia treated by means of the "Buisson" bath.

In three of these cases convulsions had become so violent that the patients had to be strapped to their beds. In one case, in which the treatment had been delayed until after the fourth day of the attack, the patient was in the extreme horrors of rapidly approaching death.

Strapped to a steam lounge these patients were subjected to steam and hot dry air—the temperature being gradually increased until 140° F., was reached, then, still sweating profusely, they were wrapped in cold sheets, (wrung dry) and swathed in blankets, with hot water bottles applied to the feet and calves, and allowed thus to remain from one to two hours, when a tepid bath 90° or 92° F. was given, followed by a cold spray douche. The sweating process was repeated twice daily and the full pack daily, up to the period of convalescence. In all these cases the aggravated symptoms subsided during either the first or second application of the treatment, and after four or six days all signs of the disease had disappeared. In no instance was there a relapse.

The frequency of the bath must depend upon the severity of the symptoms; and the maximum rate of temperature must be regulated according to the facility with which the patient perspires. The head is kept cool with cold applications, and the patient freely supplied with cold water to drink, avoiding all alcoholic stimulants and adhering to a light farinaceous diet.

R. L. F.

[Hydrophobia is among us constantly, and the plan of treatment set forth above is certainly worth of a trial. We advise our readers to procure the original paper. A simple method of applying heat to the patient—in exact doses—is needed in testing this treatment in country places and such an apparatus is made by Betz & Co., of Chicago.—EDITOR.]

Treatment of Summer Diarrhoea in Children.—Dr. A. Jacobi (*Therapeutic Gazette*, 1899, Vol. XXIII. No. 8).

To avoid errors in hygiene and diet is the best preventive.

The debilitating influence of persistent summer heat should be counterbalanced by improving the vitality and powers of resistance in the young.

The gradual diminution of the temperature of the water used for dilutions may go on until after a few months the healthy infant bears washing and friction with cold water perfectly well.

The clothing should be thin. Cotton or thin flannel should be worn next to their bodies, both of which gradually absorb and give up perspiration. In very warm weather a single loose gown is sufficient. Their mouths should be anxiously watched, a teaspoonful or more of water being given after each meal. Plenty of drinking water should be allowed between the feedings, the amounts depending upon seasons and the temperature of the atmosphere.

As to feeding, it must be borne in mind that "cow's milk is not woman's milk," and not identical with it. Sterilization or pasteurization does not change its character, they merely obviate such dangers as result from the presence of most pathogenic germs and from premature acidulation. Amongst the causes of intestinal diseases, not only the quality, but the quantity of food should be considered. In cases of over-feeding, fermentation and putrefaction take the place of digestion, and gastric and intestinal disorders are the results. Summer diarrhoea is no pathological entity. It comprises all forms of diarrhoeal discharges, from an acute intestinal to follicular enteritis, and streptococci and bacillary gastro-enteritis (Bookor, Escherich).

When any of the forms of enteritis are complicated with gastric disorder,

which is apt to show itself in nausea and vomiting, the stomach should be emptied. Irrigation of the stomach meets with little difficulty in the young. Salt solution may be used for irrigation, the temperature of the irrigating fluid should be that of the body when this is normal, cooler when there is great elevation, or warmer when there is reduction of the body temperature.

The intestines should be emptied speedily by purgatives and enemata of medicines which are to empty the bowels; castor oil, in doses of from one-half to two teaspoonfuls acts well. It should not be combined with an opiate, which finds its indication after the purgative has acted. Not only vomiting, but uncomplicated diarrhœa, indicates the withholding of food or drink for several hours; at this stage of the ailment no milk is permitted, neither breast milk nor pasteurized milk. Under ordinary circumstances milk feeds babies, but in these extraordinary circumstances it feeds bacteria. General collapse demands such stimulation as hot rectal injections of a few ounces of water with from one to five per cent. of whiskey, and subcutaneous injections of the saturated solution of the salicylate of sodio-cafein, from five to ten drops, or $\frac{1}{100}$ to $\frac{1}{80}$ grain of strychnin sulphate. In urgent cases the sub-cutaneous infusion (7-1000) of sterilized salt water (ten to sixteen ounces) may prove life saving. When the urgent symptoms of the diseases have disappeared if there is utter exhaustion, any of the salts of strychnin may be given in doses of one-sixtieth of a grain daily, in divided doses. During convalescence fresh air should be furnished, and a sojourn in the country be ordered; many a case which looked desperate will be quickly relieved and finally cured by cool mountain or sea air.

R. L. F.

Present-Day Requirements in the Management of Pregnant Women.—

Most busy practitioners—and all able practitioners, are more than busy, if they try to keep up to date—are unable to thoroughly sift the conclusions that are voiced by the vast number of papers on any and all topics on practical medicine which now flood the literature of the day. They are, if general practitioners, driven to head-line reading, or abstract skimming; and even then seldom get “court judgment” as to what is reliable and best. Obstetrics has undergone many changes of procedure of late, some of which are still lacking in refinement.

In the care of pregnant women before labor, the most general and remarkable advances have been in the expansion of ante-partum examination and in consequence greater achievement in prophylaxis. There are no opposing parties on these matters. The obstetrician who poses as an expert, and does not employ early diagnosis and prevention, is unanimously regarded as incompetent.

Hemorrhage from placenta previa and eclampsia from—well whatever it may be—are the first dangers that should be given consideration when one is engaged by a pregnant woman. We will not catch many cases of placenta previa by early examinations, or before they declare themselves by a blood show. Many able minds have been busily engaged endeavoring to locate the placenta, with but poor results. Leopold has shown by observations in Cæsarean section when the uterus was exposed, that the Fallopian tubes lie more anterior than usual when the placenta is attached to the posterior half of the uterus, and, to a less extent, posteriorly when it is attached to the anterior half.

By the vagina we may sometimes feel the placenta when it is lying over the internal os. Patients with placenta previa should either be at all times (as in a hospital) within the *immediate* reach of a physician, or undergo induced labor.

In the prevention of eclampsia the latest views recognize that the disease is one of possibly special toxin development, but certainly the retention of poisons that should be escaping from the body through the eliminatives. Hence the practice of testing the urine for the reduction in the amount of urea excreted.

It is assumed, with very general approval, that while urea may not be the eclamptic generator, its lessened elimination bears much the same relation to eclampsia that falling of the barometer does to an approaching storm. Recent text-books, such as Jewett's and Hirst's, give excellent descriptions of the methods of testing the "urea wave."

The older tests for albumin, casts, and reduction in quantity, have lost none of their weight of importance as fore-signs of eclampsia. The most prominent adjuvant in treatment both for a threatened attack and one that supervenes is hot saline solution, or artificial blood serum. The usual solution employed is a $\frac{6}{100}$ per cent. solution of salt in hot water, which can be given most easily by injection into the colon through an eighteen-inch tube, and limited in quantity only by the ability of the patient to retain it.

This solution is now extensively used in cases of severe hemorrhage, and is probably the most valuable article in the nature of a remedy taken up by obstetricians in this generation.

Ante-partum examinations are of great assistance in the efforts we are all making to reduce the evils of mal-positions and dystocia. It is a perfectly conservative statement that fully one-half the improvement in the results from these difficulties is obtained where the obstetrician employs careful and skillful examinations before labor.

Diet has received more attention of late years than formerly, and the recent work of Schenk, who claims that sex can be made a matter of selection, in so far that if sugar shows in the urine a female may be expected, and that treatment excludes all trace of sugar, begun before impregnation, will result in male generation, has accentuated interest. Prochownick promulgated some years ago the claim that dystocia could be prevented by such diet as would lessen bone development and hardening, and fat formation in the fetus. Prochownick's theory has not received the consideration that it probably deserves, partly because it calls for an early observation of cases, which is prevented largely by the bad habit of many patients in delaying the engagement of their physicians for confinement. Schenk's claim has not yet been accepted by our leading investigators, as of course it could not be, for much time is required to test a method that calls for treatment for a *prospective impregnation*.

The numerically most important topic in obstetrics—sepsis—has only recently seen two important changes of view: First, in the matter of prevention, and second, in treatment. It is now accepted that the normal condition of the vaginal area is one of asepsis, and that the secretions are themselves germicidal.

Vaginal douching before or during labor is therefore quite generally not employed. But the introitus and vulvar surfaces are not aseptic and are not germicidal, hence they should be most carefully cleansed before any examinations are made. The best method of making digital examinations is to cleanse both vulva and one's own fingers, then hold the lips of the labia minora apart while introducing the fingers of the other hand. This method lessens the liability of carrying vulvar germs into an aseptic vagina.

Some vaginæ are in a septic condition and should be cleansed; but they

should be selected individually for douching and scrubbing, and not cause the clean ones to suffer.

In treatment of puerperal sepsis, we seem to be rather worse off than we thought we were a year or two ago. Anti-streptococci serum is practically discarded as useless, and no other article can be claimed as of specific value. Blood flushing with saline solution, local surgical cleansing and the old friends of the pharmacopeia are the most that can be mentioned. Peri-uterine packing with iodoform gauze after dissecting the cervix partially per vaginam is being tried, but no opinion can as yet be given upon its merits, its idea being that the lymph channels, the chief means of communication of the septic material with the uterine body and adnexa, are thus closed.—*Talks to Physicians by Edward A. Ayers, M. D.—Int. Medical Magazine.*

The Feeding of Infants.—When the mother has sufficiently rested from the hardships and fatigue of labor, her infant should be applied to the breast. This will be from four to six hours after labor, and, as a rule, the breasts contain a small amount of milk, enough to satisfy the child at this time. If the infant shows signs of thirst or is quite uneasy, it may be given a little water, a little milk and water (one part of milk to six of water), or if very noisy, a little good brandy very largely diluted with water.

The stomach of a new-born child holds but little, and therefore, it should nurse every one and one-half to two hours during the day time and every three to four hours during the night.

As the child grows older this interval between feeding should be lengthened, so that, at the age of six months, nursing will take place about every four hours, and small quantities of artificial food given several times a day. The time devoted to each nursing should not exceed twenty minutes and should be followed by a thorough washing of the nipples. There is no fixed age at which infants should be weaned.

The appearance of the canine teeth at about the fifteenth to the twentieth month is an indication of the child's ability to masticate soft food, and weaning may be begun. Weaning should not be done abruptly so as to force a sudden change of diet upon the child. It is advisable to defer weaning until after the summer months, especially in cities, because of the child's predisposition to attacks of bowel trouble during this period of the year.

It often happens that a child is deprived of its mother at or near its birth, and recourse must be had to artificial feeding.

The wet-nurse affords the most typical substitute for the mother in the feeding of an infant. If she cannot be obtained, some other food resembling as closely as possible mother's milk is obviously required. The only kind of milk most readily obtained and which resembles as closely as possible human milk is that of the cow.

This differs from human milk, being richer in butter, casein and salts, and containing less sugar and water. Milk from old cows is less nutritious than from younger animals and is also more liable to be diseased.

Milk from a herd is quite apt to be uniform in quality from day to day, while that from a single cow may vary daily, according to changes in her general condition.

It is advisable to boil or sterilize all food and drink given artificially-fed infants during at least the hot season of the year. Milk given an infant should be alkaline in reaction, and while milk from grass-fed cows is alkaline, that from barn-fed cows is acid, and should be made alkaline by the addition of lime water or soda.

A uniform temperature of the milk at about 99° F. is most agreeable to the child's stomach.

This proportion should gradually change, so that at about ten months the infant receives the milk pure. An even tablespoonful of milk-sugar dissolved in boiling water and filtered, is the proper quantity for about eight ounces of food. This solution of milk-sugar must not be allowed to become older than one day at most. The regulation nursing bottle, sold at the shops, should absolutely be discarded in favor of an ordinary three, four, or six-ounce vial, according to the age of the child, and an ordinary rubber nipple.

It frequently happens that babies cannot tolerate cow's milk at all, even when prepared to resemble mother's milk as nearly as possible. Such children, as a rule, do well on condensed milk.

Whatever the food of an infant may be, if at any time it shows evidences of indigestion, or becomes affected with one of the different forms of diarrheal trouble, it is always best to introduce a change of food. This alone often corrects the disturbance. The mother may begin to menstruate during the early months of lactation, or she may become pregnant soon after the birth of her child.

In the former instance she may suffer such systemic disturbances as to change her lacteal secretion sufficiently to injure her child. The little one may have severe attacks of indigestion and even go into convulsions. Here a substitute must be employed during the days of menstruation, and a day or so thereafter a return to the breast may be made.

During this period of suspension of nursing, the breast-pump must be regularly used to keep up the secretion of milk. In the case of early pregnancy it will be necessary to wean the child entirely, both on account of the deranged condition of the milk, and also on account of the drain which lactation produces upon the mother.

Tuberculosis in the mother, or an inability to suckle her child on account of the wasting and debilitating effect it produces on her, are also reasons for weaning. Acute diseases in the mother do not necessarily call for weaning of the child, unless the disease extends over too long a period of time.

A fissured nipple or an inflamed breast may be the cause of severe digestive disturbance in the child. At the age of 6 months small quantities of farinaceous food may be given with the milk diet. Later, the softer kinds of solid foods, such as oatmeal, gruel, or rice, well cooked, and small quantities of beef broth may be added, so that at the age of from 12 to 15 months the food will be of greater consistence. Crackers and stale bread may now be boiled in water or beef broth and fed with a spoon. Small quantities of baked potato with butter and salt, and perhaps, a little soft egg, also agree well at this time. Vegetables should not be given during the first year of life, and sparingly during the second.

At the age of 2 ½ to 3 years all the teeth have made their appearance, and the child may now gradually acquire access to the general table.—*A. W. Kratzsch in Pediatrics.*

Acute Rhinitis.—Dr. W. Warren, of Detroit, Attending Laryngologist of the Children's Free Hospital, states that one of the combinations, which he has found to afford much relief in this affection, consists of a mixture of codeine sulphate, phenacetin, salol, and caffein citrate. These various drugs are combined in varying proportions to meet individual cases, but always with the view of having small doses frequently repeated.—*Medical Age*, January 10, '99.

Publishers' Department.

A FAMOUS EXPRESSION.—Prof. Gibson, one of the pioneers in the development of scientific medical teaching in the United States, was asked by one of his students at the University of Pennsylvania, how to obtain a comprehensive, accurate knowledge of medicine that would enable the physician to make a correct diagnosis, and execute proper treatment. Dr. Gibson's reply has become inseparably connected with his name and memory. It was, "Principles, principles, principles." By this, of course, was meant that however varied were the manifestations of disease, they were to be comprehensively grasped only by a knowledge of the fundamental principles of physiology, pathology and therapeutics. The symptoms of disease, however manifold, could be intelligently interpreted only on this philosophic basis. Strictly consistent with this inexorable law is the fact that all conditions of depression and exhaustion of the system can be appropriately and effectively treated only by re-awakening the dormant and torpid nutritive functions. The crying need of the emaciated tissues and impaired vital functions is for food, the natural restorative. In most cases, however, there is not only an indisposition to take food, but the digestive organs are so enfeebled that they cannot digest and assimilate food—their functions are suspended.

The first indispensable step is to restore these functions. The ordinary tonics—iron, arsenic, strychnine, hypophosphites, etc.—fail entirely to accomplish this object. Cod liver oil is the heaviest burden on even the strongest digestive powers to prepare for assimilation; on the atonic stomach it is an irritant—it aggravates the existing troubles. The digestive organs must be gradually coaxed into a condition of restored functions; they need stomachic alteratives, tonics and stimulants.

The best of these, as proven by experience, is Gray's Glycerine Tonic Comp. It has a specific, selective action upon the atonic digestive organs; it not only enables them to digest food, but it invariably promotes assimilation, so that reconstruction of wasted tissues and nervous force is absolutely assured. For this reason Gray's Glycerine Tonic Comp. is the most rational, scientific and effective remedy in all conditions of malnutrition, anæmia and nervous exhaustion, occurring either independently as a consequence of organic disease, such as tuberculosis, Bright's disease, or as the result of acute infectious diseases.

Penn's Successful Doctors.—The result of the examinations by the State Board of Medical Examiners, through which alone graduates in medicine may be permitted to practice in the State of Pennsylvania, has just been announced. The University of Pennsylvania makes the same extraordinary showing in 1899 as was the case in 1898. Of one hundred and forty-three students examined, only one failed, and the general average of the whole number was 86—an average far in excess of that obtained by students of any other school of medicine.

The fact that the University of Pennsylvania furnished about thirty-four per cent. of the entire number of candidates for the board's certificate and less than two per cent. of the number of failures makes the record all the more remarkable, especially when the exceptionally high average obtained by all the men is taken into account.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, OCTOBER 20, 1899.

No. 8

1st com

Original Communications.

A New Method of Inflating the Middle Ear and Treating the Diseases Relating Thereto.

By LUCIEN LOFTON, A. B., M. D., Norfolk, Va.

President Seaboard Medical Association of Virginia and North Carolina.

IN October, 1896, there appeared an article, written by the narrator, relative to inflating the middle ear, and was couched in the following language :

"A method that is simple from the standpoint of the specialist and patient alike, is a device for inflating the middle ear, which I herewith describe, together with the description I give the instrument and its use no doubt will be clearly understood. The instrument comprises one of the newer forms of stethoscopes with the chest receiver detached. In its stead a hard rubber flattened mouth-piece is substituted, the latter being placed gently, but firmly between the lips of the patient, while the ear apparatus is adjusted to his ears. After this is completed what remains to inflate the middle ear is simple lateral suction upon the part of the patient rapidly executed. The force thus generated from without inwards, and vice versa, causes the adhered drum to vibrate, if possible, or to swing to and fro. On a normal drum the force is so concentrated, as to cause great discomfort. Should you desire to inflate one ear, you can, by squeezing one or the other rubber tubes accomplish your desire. This manner of inflating the middle ear is considerably more reliable than is Politzer's Valsalva's method, the external ear pump, or the catheterization process.

The method I advise leaves no way for the air to escape only through the course intended. The ear pieces are supposed to fit snugly and firmly, and the suction which takes place is equivalent to several ounces of pressure.

If so desired by the specialist, patients may use this instrument alone.

Probably the most reliable stethoscopic attachment is the one suggested by Lewis Snifton. Every specialist in otology will fully appreciate the usefulness of this method of inflating the middle ear after one or two trials."

Since the above article was written I have treated and made permanent cures in fifteen cases of acute and chronic middle ear trouble. I do not say I have not used adjuncts in the shape of medicines, as tonics, but no other instrumentation has been tried.

A few weeks ago a gentleman from Johnstown, Penn., who is touring the Southern ocean resorts, applied to me for another trouble, and while talking to him I noticed he invariably turned the right side while in conversation. As long as he had not come to consult me for ear trouble I felt some hesitancy in asking him about his deafness, but he finally said by way of explanation that if I kept to the right I would not have to talk so loud, as he had been "losing his hearing" for the past two years. He could scarcely distinguish the tick of a watch pressed tightly against the ear, and it was with much emphasis he could hear me shout two or three feet away. Upon examination by electrical device, I noticed some impacted cerumen, which was removed by syringing. This, however, did not seem to improve his condition, but satisfying myself the disease was not external, I proceeded with gentle air massage to inflate the middle ear. After five seances he could hear a watch tick five feet, and could understand perfectly anything said in ten to fifteen feet of him, spoken in a moderate voice. To-day, while in my office, a whisper spoken at a distance of six feet was easily heard by the lately affected organ. He says he is improving all the time, and I believe this will be the means of adding another successful cure to my treasured list of fifteen.

I trust the profession at large, and especially otologists and general practitioners will have one of the devices made. Any instrument dealer can supply them, and those having the Snoton stethoscope can adjust the rubber mouth piece easily for ready use.

Old Age and the Modifications in the Course of the Ordinary Diseases When They Attack the Aged.

By MARVIN E. NUCKOLS, M. D.,

Lecturer on Medical Jurisprudence and Assistant Demonstrator of Chemistry, University College of Medicine, Richmond, Va.

IN considering the subject of old age the question arises, is it a disease, as the older and, in fact, some of the more recent writers would have us believe, or is it a physiological condition? Before we answer this question we must determine what the normal physiological state is. If we take the functions of a healthy adult as a standard and compare them with those of an old man, or even the child, it is easy to note the most striking difference, not only in the physiological functions, but also in the anatomical structure of the organs. Since we do not regard childhood (a period when the functions are nearly as different from those of the adult as are the functions in old age) as a disease, why should we call old age a disease?

Old age may be defined as a modification of the normal condition (taking the adult as normal), in which all the functions of the organs are

retarded but acting in perfect harmony, and it is, therefore not a disease, for disease implies a rupture of relations or a lack of harmony, between the various organs; consequently we can only look upon old age as a normal phase of life, a period of slow and gradual retrogression towards death and as true a physiological condition as childhood or adult life. To make this clearer and more conclusive, let us observe for awhile the living being, following it through life. The essential characters of living matter are instability and power of attraction, or the power by which the cells are nourished or new ones produced. This power resides in and is an inherent property of the protoplasm of the cells, and by it the process of integration and repair is explained, and, by its diminution, disintegration and destruction; so it can be readily seen that this characteristic plays an important part in the maintenance of life.

A natural conclusion from the above, would be that living matter ought never to die, but should be immortal. It possesses a strong power of attraction, its instability enables it to accommodate itself to any environment, and its surroundings furnish all the material necessary for its maintenance. But cells in the course of their existence, become differentiated, that is, they are changed from the primitive type; they attain a higher degree of perfection; their functions are exalted; they become specialized, and, in doing this, they lose some of their power of attraction; their resistance is lessened; in other words, what they give in quality they lose in quantity. But, fortunately, all cells are not highly differentiated, and all do not reach their maturity at once. If they did, our lives might be shorter than what they are. The nerve cell is probably the most highly differentiated and is the first to wear out, other things being equal; while the connective-tissue cell is the least differentiated, and as a result enjoys a long and happy existence. This may be more clearly shown by an example. Suppose nervous tissue, or any other highly-developed tissue is worn out through use, or has accidentally been rendered incapable of performing its functions. It cannot replace itself, but is replaced by connective tissue, thus explaining the extent of sclerosis in old age. In connection with this, I do not think it will be out of place to say something of the *role* which connective tissue plays in the economy. It is the most widely distributed of all the tissues, acting as a support and protection for tissues more highly organized. It is of all the tissues the most capable of regeneration; acting the principal part in healing all wounds and injuries. When more highly developed tissue is worn out or destroyed it takes its place, or it may be converted into cells identical with those destroyed, and thus replace them. In this case, the connective-tissue cells seem, as it were, to forget themselves and assume the character and functions of their neighbors. Prolonged excitement due to hyperemia, hyperactivity of function and circulation of toxic blood will also cause its development. This process is constantly going on in later life, and we should not be surprised to find sclerosis of the organs of the body. When the noble cells, or highly differentiated cells, cannot be replaced in sufficient quantity,

and connective tissue begins to fill in the gaps, the functions of the organs are interfered with and senescence begins. It may be asked, why old age begins at different periods in different individuals. This is explained by difference in habits, temperament and diathesis, all of which affect the resistance of the cells. A person may inherit a strumous diathesis, in which the cells have little vitality from the beginning, little power of attraction and little resistance, and, as a result, are prone from the beginning to early degeneration and death. It is easy to understand why this person becomes old sooner than one who inherits no diathesis and lives a temperate life.

Various theories have been advanced from time to time as to the causes of senility but I shall mention only two to show how different they are from the present teaching:

The first is that the cause resides in the respiratory organs. The lungs perform their functions imperfectly, resulting in defective hematosis; the blood is not sufficiently oxygenated, and, as it is the carrier of nutrition, the organs and tissues suffer as a consequence. The second is that sclerosis is produced by arteritis, and this, in turn, by vitiated blood. By deductive reasoning, we come back to vitiated blood as the primary cause of senility, but no reason is given for vitiated blood.

The great objection to these theories is that they take effect for causes. All these conditions are the results of senility, as I have shown when speaking of the evolution and specialization of cells.

Now that it has been shown what old age really is, and how it is brought about, I will say something of it in its relation to the ordinary diseases.

The older writers tell us that there is a defective reaction in disease, and that the organs seem to become independent of one another and to suffer separately; in other words, the condition of a particular organ is not echoed by the economy as a whole, as in adult life. This is to a certain extent true, but when we study the conditions more closely we find it is more apparent than real. Consider the temperature in febrile conditions in the aged. To the touch, or if taken in the axilla, it is very much lower than that of an adult under the same conditions. The subcutaneous fat has disappeared and the circulation in the skin is poor, and as a consequence the skin and extremities may feel cold, but if the temperature is taken in the rectum it corresponds very nearly to that of the adult. That there is reaction in the aged is also shown by increased combustion in febrile conditions, manifested by an increase in the solids of urine; but reaction, while marked, is somewhat less than in adult life or childhood. The reason for this is that the functions are retarded. The organs which express and feel are slower to act. The whole condition is one of lowered vitality. The pulse is usually below seventy and is often intermittent, showing that the heart, is wearing out and needs rest. A pulse of 80 to 85 usually indicates some pathological condition, and, when noticed necessitates a thorough examination in order to discover its cause, while a pulse of 120, if it lasts any length of time, is almost certainly fatal.

The respiration is always increased, even when the lungs are not involved (but it is exceedingly rare to find an old person whose lungs have not undergone some change, either fibroid or emphysematous, or both), due to nature's endeavor, that hemastosis may go on properly.

The eruptive diseases are rare in the aged, because most old people have had them; still those who have never had them are not immune. The symptoms are never characteristic, the eruption is almost always absent, complications are more frequent, the heart, lungs and kidneys being especially apt to be involved.

Typhoid fever is not rare in the aged. The local symptoms are generally mild. The fever is of a low type; toxemia and depression are always marked, and convalescence is tardy and relapses frequent.

Bronchitis in the aged is very frequent, both on account of the conditions already present in the lungs—emphysema, sclerosis and dilatation of the bronchi—and the natural susceptibility of the aged to cold. It is apt to become chronic, especially in those who are gouty. It also shows a marked tendency to extend to the smaller bronchial tubes, thus jeopardizing life.

Pneumonia is probably the most frequent acute disease of old age, and kills more old people than any other disease. It develops in an abnormal manner, and is very insidious in its onset. The objective symptoms are not characteristic; in fact, the patient may present the symptoms of meningitis or no symptoms at all, and may even be going about when the physical signs of pneumonia are present. Therefore, when called to see the aged in winter, even if there are no outward manifestations of pneumonia, it is advisable to examine the lungs. The symptoms, when present, are slight, low fever, little or no pain, some dyspnea and marked cyanosis. Tuberculosis, once said not to exist in old age, is sometimes present, being usually of the fibroid type. In it there is little or no cough or fever, no night sweats—simply slow and progressive emaciation, with the physical signs.

Acute Bright's disease probably does not exist in the aged. The kidneys are always atrophied and degenerated; still the system accommodates itself to the condition, and the patient gets on fairly well until there is some disturbance in the economy; metabolism is increased, and the kidneys, being unable to eliminate the waste material, uremia results. This may be so light at times, giving rise to only headache and malaise, that we may be thrown off the track unless frequent examinations of the urine are made.

I might go on indefinitely with a description of the diseases occurring in the aged, but since I have spoken of the principal diseases common to other periods of life as well as old age, I shall conclude with a few remarks as to the care of the aged.

We should especially advise them with reference to diet, fresh air, exercise and clothing. The diet should be simple, but nutritious. The patient should aim to eat simply to repair, and as the functions are much reduced, very little is required to maintain life. They should eat as do children—often and in small quantities. The evening meal should be light and unstim-

ulating. We should caution them especially about overloading the stomach and allowing themselves to become constipated, as this is one of the most frequent exciting causes of apoplexy. Alcoholic liquors, if drunk at all, should be taken with caution.

Fresh air is very essential to the aged ; in fact, more so than at any period of life, because, on account of the condition of the lungs, hemastosis is imperfect. It is entirely wrong to keep an old man shut up in a warm room and allow him to breathe and rebreathe the same air. It is a common thing to find an old man, heavily clothed, drawn up by a hot fire, and dreading a breath of fresh air for fear of taking cold. The clothing should be warm, but light, and he should be made to take outdoor exercise every day.

When called upon to treat the aged we should make a thorough examination, especially of the lungs, heart and kidneys, for reactions in the aged are not marked, and some serious condition may exist without any outward manifestation. In all diseases we should test the urine from day to day, and should be ever ready to anticipate and combat the depression, so often seen in the course of diseases in the aged, by the administration of tonics and stimulants.

SELECTED PAPERS.

Collective Reports on Glycerinized Vaccine Lymph.

By ALBERT C. BARNES, M. D., Philadelphia.

The recent widespread epidemic of smallpox in the United States has necessitated general vaccination which has afforded excellent opportunities to determine the exact actual and comparative value of glycerinized vaccine.

For the past ten months I have been collecting reports from various infected districts in an effort to ascertain not only the actual value of glycerinized vaccine as a protective against smallpox but its relative value compared with vaccine points, quills, crusts, and the older methods of producing vaccination.

Other objects to be determined were (1) the value of glycerinized vaccine as a preventive of smallpox; (2) the proportion of successful "takes" in both primary and secondary vaccinations; (3) the relative frequency of complications, such as diffuse inflammation of the vaccinated area—cellulitis, lymphangitis, lymphadenitis, ulcerations, abscesses, etc.—which so often follow the use of vaccine points.

The methods of inquiry adopted in this investigation, were by circular letter and personal inquiry, by large numbers of physicians throughout the country.

In a certain number of cases where wholesale vaccination was practiced, as for instance by health authorities, exact figures could not, for various reasons, be obtained. However, in such instances, the reports were conservative and were none the less illustrative and convincing.

In Baltimore, where for several months there has been a number of cases of smallpox, there were employed by the health authorities and physicians in private practice considerable over 100,000 tubes of glycerinized vaccine. Those vaccinated were periodically observed until the success or failure of the vaccination was determined. In not a single instance did smallpox occur in a person vaccinated with glycerinized lymph. Conservative estimate places the number of successful "takes" as 95 per cent. in primary cases. The vesicles in most instances were typical and uncomplicated with staphylococcic and streptococcic infection. The number of excessively sore arms did not exceed one per cent. of the total number vaccinated.

In Minneapolis, in one series of 3,045 vaccinations with glycerinized lymph there were 29 failures, all of which were in secondary cases, *i. e.*, those who had been previously vaccinated. In the same city a second series of 3,875 vaccinations resulted in four failures in primary cases and in 51 failures in secondary cases. All the data collected from Minneapolis show a proportion of 95 per cent. successful "takes" in primary cases and 75 per cent. in secondary cases.

Cleveland records show that widespread vaccination was practiced. Both glycerinized vaccine and points were employed at the beginning until results proved the vast superiority of glycerinized lymph when points were almost entirely abandoned.

In one series of 20,000 cases vaccinated with the glycerinized product, there was an average of over 90 per cent. successful "takes." Septic complications were almost entirely absent.

In Richmond, Norfolk, and Portsmouth, Va., no accurate records were kept of results obtained, but in these three cities there were employed about 120,000 tubes of glycerinized lymph. Extensive inquiry concerning results obtained, place the successful "takes" over 90 per cent. In these cities the superiority of the glycerinized lymphs over the points, in producing successful vaccinations and avoiding septic complications, were everywhere noted. The experience of the health authorities and physicians in private practice in Norfolk, is particularly valuable. At the beginning of the smallpox outbreak, vaccine points of a standard make were employed extensively. In a large number of cases, smallpox in a virulent form occurred among patients who had been vaccinated with points. This shows that the inflammatory reaction, which took place at the site of vaccination, was due to staphylococcic infection and was not true vaccination.

From Philadelphia, Indianapolis, Chicago, Gloucester Co., Va., Pittsburg, Allegheny, Stanwood, Ia., Lisbon, Ia., and over 40 small towns throughout the country, responses to inquiry show that while no accurate records were kept the glycerinized vaccine, in comparison with points, had proved so superior in producing successful vaccinations (average from 90 to 95 per cent.) and in affording freedom from septic complications, that points had been largely abandoned in those places in which comparative tests had been made.

In Porto Rico, under the supervision of Dr. George G. Groff, Major and Brigade-Surgeon U. S. A., extensive vaccination was practiced. Vaccine points in this climate failed entirely while glycerinized vaccine yielded about 90 per cent. of successful vaccinations.

Dr. R. T. Hammond, Jessup, Md., had vaccinated 236 patients with glycerinized lymph and had but one failure; no excessively sore arms resulted.

A series of 70 vaccinations in private practice in Indianapolis, with glycerinized lymph, showed successful takes in all but one case. No septic complications.

Dr. F. V. Ely, Pittsburg, secured 36 successful takes in a series of 40 vaccinations with glycerinized lymph. This is remarkable, inasmuch as at least one-third of these cases were secondaries.

Dr. F. A. Crosby, Beach Ridge, N. Y., reports 100 per cent. successful vaccinations with glycerinized lymph in a series of 60 cases. Sore arms were not noted.

Dr. G. G. Rusk, Baltimore, vaccinated 360 persons with glycerinized lymph and obtained a successful "take" in every instance.

Dr. C. T. Matfeldt, Catonsville, Md., employed glycerinized vaccine in a series of 157 cases, 20 per cent. of which were secondaries; 155 successful vaccinations resulted.

Dr. D. W. Dodson, Nanticoke, Pa., reports that in a series of 250 cases he secured 100 per cent. successful vaccinations with glycerinized lymph.

Dr. J. R. Faust, Mann's Choice, Pa., vaccinated 130 school children and teachers, every one of which was successful.

Dr. A. J. Taylor, member Board of Health, Caribou, Maine, reports 200 primary vaccinations with 30 failures; of the latter 27 were re-vaccinated with 14 successful takes. This experience shows the value of revaccination in those cases in which successful result did not follow first vaccination. The average in this series of cases was over 90 per cent. successful "takes."

Dr. W. F. Beyer, Punxsutawney, Pa., vaccinated 300 cases, *primary and secondary*, and secured 98 per cent. successful "takes"—in other words there were but six failures.

A large number of other private reports show that glycerinized lymph yielded from 90 to 100 per cent. of successful takes in primary cases and from 60 to 75 per cent. in secondaries.

Conclusions: This investigation proves conclusively that the recommendation of the United States Marine Hospital Service that "glycerinized vaccine only should be employed" ("Public Health Reports," January 9, 1899) is well substantiated by experience, because:

1. Properly prepared glycerinized vaccine is pure and free from staphylococci, streptococci, and other pathogenic organisms which are invariably found (Copeman, Crookshank, Pfeiffer, Reed, U. S. A.) on vaccine points.

2. Glycerinized vaccine affords absolute protection against smallpox; vaccine points are uncertain in this regard.

3. Vaccination with the glycerinized products does not cause excessive inflammation of the vaccinated area. Cellulitis and inflammation of the lymph vessels and glands amounting at times to abscess formation is a not infrequent sequence of the use of vaccine points.

4. Vaccine points are apt to lead to a false sense of security, inasmuch as they induce a local staphylococcic or streptococcic infection which is entirely distinct from true vaccination. Such a result is not protective against smallpox.

5. A high estimate of successful takes from vaccine points, is by these and numerous other reports shown to be not over 60 per cent. in primary cases and a much lower percentage in secondary cases.

6. Glycerinized vaccine has been officially adopted by the governments and health authorities of the United States, Great Britain, Germany, France, Russia and Belgium. It should be universally adopted in private practice.

Hydrotherapy—A New Bath, Facilitating Its Use in Private Practice.*

By A. C. HAVEN, M. D., Lake Forest, Ill.

RESUME.

Brief history of the Use of Water in Medicine.

Prejudice against Water, and Reasons.

Physiologic Action of Water—Cold and Hot.

Therapy—All Hyperpyrexia, etc.

Contraindications.

Technic.

Exhibit of New Bath.

The remedy I wish to exalt to-day is no new substance, compounded in German laboratory by processes of synthesis, but an original product, direct from the hands of the Creator; utilized first by Adam, recognized and recommended by all the illustrious followers of Esculapius, to the present day; even used by the Great Physician, Jesus Christ, who commanded the leper to go bathe in the river Jordan and be made whole. Yet with all these unparalleled recommendations, water is largely neglected by the busy practitioner of to-day, for the easier prescription which the druggist may compound. One hundred years ago Cullen sang the praises of cold water, and Brand of Stettin, Von Ziemsen, and our own Baruch, and many others have fought nobly to win it a place in our pharmacopeia. But their success has only been partial. Why has it not been complete? Surely not because the remedy does not meet the expectations of those who give it a fair trial. But it is such a common, every-day remedy with such an ordinary name. Sometimes I think if it were given its chemical name of protoxid of hydrogen, it would rise in the estimation of the profession.

Then, for a long time it was utilized by quacks, who did not use it scientifically, and recommended it as a "cure-all," thereby prejudicing the

*Presented to the Section on Practice of Medicine at the Fiftieth Annual Meeting of the American Medical Association, held at Columbus, Ohio, June 6-9, 1899.

honest physician against it. Another cause of failure is because of a monstrous error which has deeply saturated the minds of the laity; and many otherwise learned physicians, too, are afflicted with the same paralyzing fear of "catching cold" from the use of water. The very remedy most potent in preventing colds is accused of producing them. Nansen and his crew had no colds in the Arctic regions. Only when they reached civilization did colds appear. Zymotic influences undoubtedly figure in their etiology. How absurd then to allow this illogical reasoning to deprive us of a powerful and beneficent remedy.

Sometimes I think a great part of the race are victims of true hydrophobia. I had occasion to recommend a bath to a patient recently and was electrified with the response: "I don't know as it would make any difference, Doctor, but there has not been a drop of water on my body for twenty years."

The more formidable objection is the *time* required for the proper use of this remedy. Many argue that water is all right for hospitals, where time is abundant, and helps many; but the fact that water is almost universally used in hospitals, argues that this remedy will accomplish what other drugs fail to accomplish, else why should hospitals go to all this trouble and expense? And a remedy which works such marvelous results in hospitals is a good thing for physicians generally to understand and use, and the chief purpose of this paper is to prove that the remedy can be applied to private practice without the loss of too much time, and without great inconvenience. I shall try to show how the patient in the country farm-house and the crowded city tenement may receive the blessings of this unequalled remedy.

Still another reason why the bath is not more often used by the private practitioner is a lack of appreciation of the physiologic action of such baths. To be sure baths are useful for cleansing purposes, and they also reduce bodily temperature, but baths are more potent as therapeutic remedies than that. Briefly, a cold bath stimulates all the nerve-centers, liberating new nervous energy, and thereby stimulating all the functions of the body and greatly improving the patient's resisting power against disease. The heart is powerfully strengthened, not weakened, as many suppose. The kidneys act vigorously after a bath, and experiment has proven the urine far more toxic after than before a bath, showing elimination of the poisonous ptomains. The lungs, too, do their part, as respiration is powerfully stimulated by the cold bath, increasing the supply of oxygen and the exhalation of poisons. The skin is another channel of elimination that is greatly augmented by the cold bath, and bed sores are far less liable to appear. In fine, the cold bath fortifies the patient in his struggle against disease, stimulating the vital functions and hastening the throwing off of the poisonous ptomains and their products. No other remedy can approximate it in usefulness at times. Nor do the baths inhibit the use of other therapeutic measures; they simply co-operate with them.

Hot baths, too, have their own distinct physiologic action, quite differ-

ent from the cold. The warm bath numbs the terminal nerve-fibers, rendering them less sensitive, and thereby producing a sedative action. Baths over 105 irritate the vasoconstrictors, resulting finally in paralyzing them, dilating the peripheral vessels and raising internal temperature.

As to therapy, all hyperpyrexiaë are far more readily controlled by cold baths than by any other known remedy. Phenacetin and other coal-tar derivatives weaken heart action, if long used, and the patient merely dies with a normal temperature. Whenever delirium, restlessness and insomniæ appear, the cold bath is indicated. Cyanosis and signs of collapse are urgent symptoms demanding the use of the warm bath with cold affusion over the head and shoulders, with gentle friction. This will often rescue the sufferer from the very jaws of death, in a manner unknown to any other therapeutic measure.

If, for any reason, I cannot use cold baths in typhoid fever, I confess I feel my patient has had only half a chance of recovery. The mortality has been reduced from 25 per cent. to almost nothing, when the baths are properly administered. In the last two years I have treated some forty cases without a single fatality.

It is in typhoid fever that the cold bath is seen in all its perfection. Its results are almost magical. Until some true specific, some antitoxin, is discovered, which will abort the disease, I shall continue the use of the cold baths in typhoid fever, in the belief that I am thereby giving my patient the safest and best treatment. Many lives might annually be saved, were this treatment more universal. I cannot understand why it is not the rule, the orthodox treatment in private, as well as hospital practice, unless it be that the busy practitioner feels he cannot spare the time and labor necessary. It is not as difficult as many suppose, and even if it were, the results warrant the extra effort.

The exanthemata have long been treated with the initial warm bath. Strange to relate, the cold bath, with friction, is far more effective in bringing out the rash, and, contrary to old ideas, will not suppress the eruption. When high temperature and marked nervous symptoms appear in the exanthemata, nothing approaches the cold bath in quickly benefiting the little patient.

You are all familiar with the sedative effect of the hot bath in uremia, in convulsions of all kinds, and in cerebrospinal meningitis, and of its benefit in rheumatism and many chronic complaints which time forbids me alluding to.

The modern treatment of pneumonia in children demands the use of the warm bath, which not only reduces fever, quiets nervous symptoms, insures sleep, but tones up the heart action, thus facilitating recovery greatly. Bronchitis, too, in children is greatly relieved by the timely use of the warm baths. The list might be extended, but my object is merely to show that baths are no mean power for good, and should not be neglected or rejected.

The contraindications to the use of the bath are far less than are usually

supposed. When rest is imperative, as in pleurisy, peritonitis, perforation or hemorrhage in typhoid, baths are best discontinued. A certain chilly sensation or even cyanosis of the body does not contraindicate their use, but cyanosis of the face is an indication of danger. Syncope may cause their cessation. Atheromatous cases and angina pectoris contraindicate hot baths.

As to technic, ten or fifteen minutes usually suffices, but one point I would emphasize in the cold bath, viz., *friction*, which is absolutely necessary, over the surface of the body, insuring reaction and preventing internal congestions. The neglect of this is fatal to the good effects of the cold bath.

I do not recommend the bath as a "cure-all." It is merely a powerful remedy in combating disease which I feel is not as generally used or appreciated as it should be. It is one of many remedies which should belong to every physician's armamentarium, be he hospital, city or country practitioner.

The bath I have devised is cheap, enabling many to use it. It is portable, no larger than an ordinary hand-satchel when folded, and can be carried by the nurse or physician. It can be operated by one attendant, as no lifting of the patient is necessary. It is simple, with nothing to get out of order. It consists of a canvas strap, encircling the head-board of the bed, the ends of the canvas belt fastened by a simple catch, so that the belt may be drawn taut, another canvas belt of similar design for the foot-board, two rings, twenty-six inches apart in each canvas strap, a rubber sheet hemmed at both sides, in which slip ropes, on the ends of which are four snaps. The patient is rolled on the sheet, the four snaps are caught in the four rings, and the tub is ready for the water. It is emptied by lowering one corner, and finishing with a small piece of rubber hose used as a syphon. When not in use it folds up in a small cotton bag.

A still simpler modification can be made with a rope tied firmly around a head-board, another around a foot-board, and two parallel ropes connecting them, and three yards of common table oilcloth, fastened by a dozen clothespins to the rope.

In my judgment, there is no excuse for the busy practitioner neglecting a remedy that will do for his patient what no other drug will do. My one wish in writing this paper is to forcibly call your attention to the fact that this common, everyday, despised, neglected, yet potent remedy, *water*, should be used, and can be used, by every physician who truly has the good of his patient at heart.

"Doctor," said he, "I'm a victim of insomnia. I can't sleep if there's the least noise—such as a cat on the back fence, for instance."

"This powder will be effective," replied the physician, after compounding a prescription.

"When do I take it, doctor?"

"You don't take it. Give it to the cat in a little milk."—*Tid-Bits*.

A Combined Stomach-Tube and Douche.

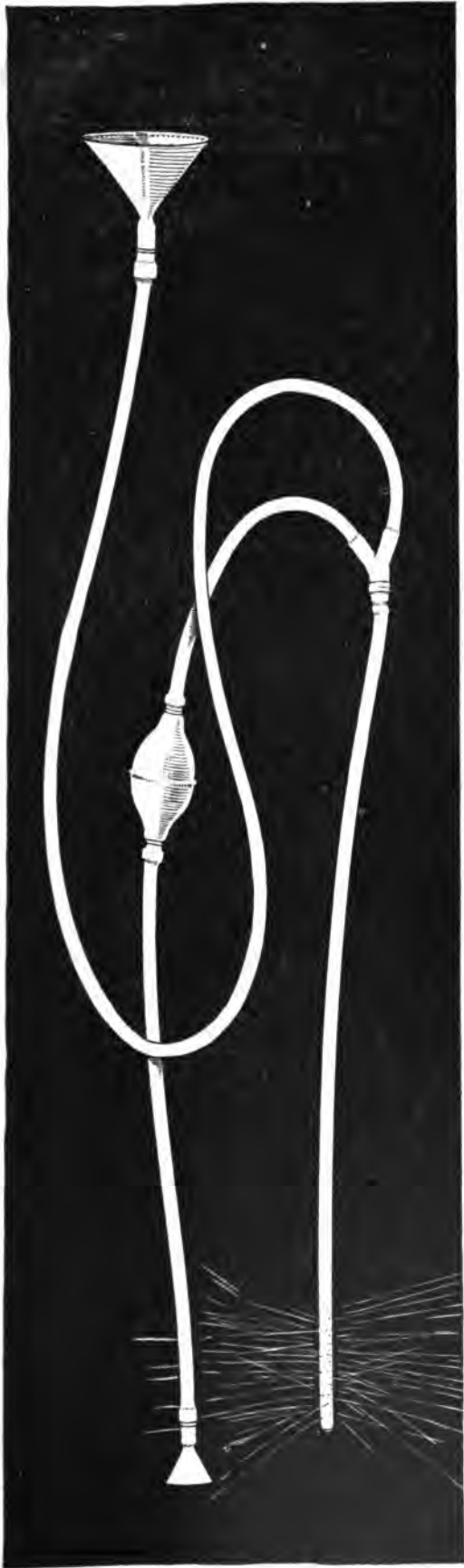
By J. W. BELL, M. D.

Professor of Clinical Medicine and
Physical Diagnosis, Univ. of
Minn., Minneapolis,
Minn.

The pressing need of a more satisfactory method of securing thorough gastric lavage, as well as a more efficient means of treating atonic conditions of the gastric mucosa and muscularies is my only apology for calling attention to a new combined gastric-tube and douche.

The instrument consists simply of an inflow tube equal in size to two-fifths of the lumen of the entire tube, ending in a perforated jacket. This perforated jacket, corresponding to the last four inches of the gastric end of the tube, contains some seventy-two very small openings through which the water issues in fine streams or a coarse spray with a force corresponding to the pressure or height of the column of water in the inflow tube. The outflow tube, corresponding in size to three-fifths of the lumen of the entire tube, simply performs the functions of an ordinary stomach-tube, draining the stomach of its contents, thus enabling the small streams issuing from the small openings in the jacket to come in contact with and thoroughly cleanse all parts of the gastric.

The perforated jacket is the only portion of the instrument original or new. This jacket proved a very troublesome prob-



lem for our rubber workers to solve, and allow sufficient space for the outflow. After many failures, extending over a period of nearly two years, they finally succeeded in making a satisfactory instrument. The following points are claimed for it:

1st. The instrument is simple in construction, durable and easily operated.

2nd. It enables the operator to thoroughly and efficiently cleanse and disinfect the stomach—an impossibility with the ordinary stomach-tube.

3d. By means of the intragastric douche we are able to stimulate and tone the gastric mucosa and muscularis.

4th. The intragastric douche, hot or cold, as indicated, is invaluable in the treatment of motor insufficiency and non-obstructive forms of gastric dilation.

Some Abuses in Nasal Surgery.*

By W. S. LATON, M. D., Minneapolis.

Professor Diseases Throat and Nose in the University of Minnesota. Member Minnesota Academy of Medicine and American Medical Association.

In discussing this subject of abuses in nasal surgery, I have no desire to criticise the surgical methods adopted by many of my worthy confreres, or to decry in any possible way the necessity for many such procedures. Yet, I feel sure that the review of half a dozen cases that have come under my observation during the year just past, showing the results of over-zealous and enthusiastic operators, cannot help but convince many of you that careful and conservative measures are quite as appropriate here as in other departments of surgery.

While admitting the importance and necessity for many of these operations, I should strongly condemn as unwise and imprudent the almost disastrous extent to which many of them are carried. You will readily perceive the wisdom of this criticism as we proceed, and you consider that all the abnormal conditions included in this discussion are of a non-recurring and non-malignant character. It is certainly apparent to you all that there is a broad middle ground between the ultra-conservative practitioner who believes in non-surgical interference, depending almost entirely upon local therapeutic measures, and the ambitious radical extremist who seizes all the bone, cartilage and connective tissue, whether innocent or otherwise, that has the hardihood to show the least prominence between the anterior nares and the vault of the pharynx. It will be my endeavor in this short paper to show the utter futility of the one, and to point out some of the dangers and serious consequences, of the other.

It is not an unusual occurrence with many of us, who are limiting our practice to the diseases in question, to meet simple cases that have been under treatment for months, and often years, where a resort has only been made to

*Read before the Minnesota State Medical Society.

the use of douches and sprays, never affording more than temporary relief, and in many instances aggravating the difficulty rather than relieving it. Especially is this true if the solutions used are of an irritating character, as they then invite an additional blood supply to the part, which produces a dilatation of the blood vessels, and in time results in the consequent deposit of connective tissue. It is in such cases that a proper conception of the diagnosis and pathological conditions should suggest intelligent and rational treatment, which would be of inestimable benefit to the patient, and the greatest satisfaction to the attendant.

I will now review the record of a few typical cases to better illustrate and emphasize the meaning I wish to convey, and, at the same time, indicate in a way the chagrin and embarrassment many of us would experience were we present when some lucky fellow discovers the inexcusable errors in our judgment and work :

CASE I. A. C. W. Male. Aged 32. Book-keeper in Minnesota for ten years. General health always good, except for the persistent and almost incessant blocking up of the nasal cavities, particularly when in a recumbent position. This condition continued in spite of more than five years, treatments with the most approved douches, sprays, and repeated applications of the cautery. Nothing ever seemed to afford hardly temporary relief. There was ever present a greenish, fetid discharge, which formed crusts, and were removed with difficulty, and for a year or more there was a constant ringing in the ears with apparent dullness of hearing. He consulted me, April 4th of this year, not for treatment, but rather for advice concerning a suitable climate to which he could go for relief from his distressing condition. When an examination was suggested, he strenuously demurred, saying that an examination always meant a new spray or an additional burning, and he had had quite enough of both. However, he reluctantly consented to a superficial examination, after assuring him that in order to give him any information of value regarding the selection of a climate, I should be obliged to know of his condition. This inspection revealed the following :

The anterior nares was very capacious, with mucous membrane over anterior portion of inferior turbinated bone thoroughly bound down by cicatricial tissue, as the result of frequent cauterizations. A dry, atrophic condition with the normal functions largely arrested. Loss of the sense of smell, due to the destruction of olfactory membrane in roof of nose. The septum was found to be straight and regular back to the extreme posterior portion of the vomer, where was found a striking deformity, which presented a picture when examined posteriorly, not unlike the letter S. The opening on either side would scarcely more than admit the passage of a probe holding the smallest piece of cotton, and the least congestion in this locality involving the mucous membrane covering the posterior portion of the inferior turbinates, would necessarily complete the stenosis. The existence of this malformation demonstrated beyond question the lack of comprehension of the previous operators, or what was infinitely worse, if the condition were

appreciated, was their gross negligence in failing to operate. My next difficulty was to convince my skeptical friend that he had anything left in his head to remove. The results following the use of the saw, bone forceps, drill and cautery were sufficient to convince him of the importance of the operation.

I trust you will pardon me for dwelling so long upon the details of this case. I can assure you I should not have done so, had I not realized how frequently these conditions are overlooked, and how easily and effectively they are handled.

CASE 2. Mrs. L. G. Aged 40. South Dakota. Housewife. First saw her in January of the present year. She complained of an inability to breathe through the left nostril; excessive dropping of mucous into the throat; partial closure of the left tearduct. Had been treated for several months at different intervals with various sprays, etc. At one time, a strong acid was applied with cotton, which occasioned great pain and distress with greatly increased discharge, which continued for several weeks, resulting in almost complete closure of the nostril. Following this, her faithful attendants resorted only to the copious use of douches, sprays and oils. My examination several months after showed extensive adhesions between the middle and inferior turbinates with the septum, effecting almost complete stenosis. The error in the conduct of this case was so apparent, that comment is hardly necessary. It is safe to assume that the result would have been reasonably satisfactory had the adhesions been regularly broken up, and the sloughs removed until the parts were entirely healed. The treatment in this case was so simple and effective that it is not necessary to relate it any more than to state that the obstruction was entirely removed with saw and forceps, and the relief was complete.

CASE 3. I. D. L. Aged 41. Residence, Minneapolis. Complained of partial stoppage of both nasal cavities; offensive and copious mucous discharge, with frequently recurring attacks of asthma. Had been treated as usual with sprays and douches, and in addition to this, large and long-continued doses of blood remedies had been poured into this poor man to correct the supposed existing blood disease. The removal of a large number of myxomatous growths from the nasal cavities was sufficient to relieve all the distressing symptoms.

CASE 4. S. E. Male. Aged 26. Residence, North Dakota. Applied for treatment in November, 1898. Complained of dry catarrh, with large accumulations of dry crusts forming in nose, which he could only remove after snuffing up water for some time. Gave a history of having been operated upon one year before, at which time large quantities of bone and tissue had been removed from both nostrils. Great relief was experienced for a few months, when this condition supervened, and an offensive odor developed. Inspection showed a cavernous opening and entire absence of the inferior turbinated in left nasal cavity, with the middle turbinated almost totally obliterated as the result of repeated cauterizations. The right side

presented a somewhat better condition, although it showed the results of great mutilation. I could offer but little encouragement in the treatment of this case, as the destruction of the parts had robbed the nasal cavities of much that was necessary to aid in its normal functions. The cavity left after the removal of the inferior turbinated bone was a receptacle for the accumulation of dust, small sticks and straws. The acute sensibility of the membrane was largely gone, owing to the atrophic condition which was rapidly developing, consequently the presence of foreign material was not appreciated until it interfered mechanically with respiration.

CASE 5. W. A. L. Aged 37. Merchant, northern Minnesota. General health robust. Received injury to nose when a lad by falling on the ice. Occasioned but little difficulty at the time, and was not attended by a physician. Since that time the nose has been somewhat deformed, and for more than ten years had experienced difficulty in breathing through right nostril. Had passed through the hands of several operators, and the condition of the organ when I examined it less than a year ago, proved conclusively the truth of his statement. The inferior turbinated on the left side had been completely enucleated, leaving a huge opening which was exaggerated by the concavity of the septum. The right nostril was almost completely stenosed by the convexity of the septum, and the hyperbrophied condition of the right inferior turbinated. Just why this afflicted side had been so noticeably slighted by so many willing hands, was difficult to explain, unless an operation here promised a less brilliant result. A straightening of the septum, and a slight cauterization of the right inferior turbinated cured the trouble, and gave ample relief to that side, but nothing could be done to the left nostril to fill up the capacious receptacle that must continue to exist.

CASE 6. A. W. Male. Aged 40. Had been treated over a long period of time with all the solvent remedies known to the profession. Finally found some one who comprehended the nature of the trouble to be a deflected septum, and who proceeded at once to correct the difficulty by removing a large section of the septum, and thereby producing a permanent opening between the cavities, which can never be repaired. This procedure afforded some relief, but I am sure you will agree with me that a less radical operation would have better served the purpose.

CASE 7. The seventh and last case to which I shall call your attention was extraordinary only in this—that a simple uncomplicated condition could possibly exist so long and avoid detection when so many were seeking an explanation for the obstinate and unusual symptoms. The case was a poorly nourished, anæmic, nervous little girl, scarcely five years of age, who was brought to my office by the mother, less than a year ago, and the following history elicited: The child was in perfect health up to something like two years before, when she developed a violent catarrh with very acrid and offensive discharge, without any previous illness. The discharge seemed more pronounced from right nostril, although both were involved. The whole lower part of the face was swollen and greatly disfigured, covered with an

unhealthy eruption, produced by the poisonous and acrid character of the secretion. Many solutions had been tried, only to aggravate the distressing condition. The nose was repeatedly probed and cauterized and large quantities of tissue removed without effecting any appreciable change. Alteratives and constructives were given with the same negative results. Finally the nose was curetted, or as the mother expressed it, "dug out." After several weeks of prostration following this operation, the nasal cavity assumed its usual condition of chronic discharge, but I judge with much less obstruction, as much of the redundant tissue had been removed. This very fortunate result afforded me the excellent opportunity of locating and removing the difficulty which I should perhaps not otherwise have been able to do. Passing a probe along the floor of the nose back toward the soft palate, I discovered a slight elevation which was hard and unyielding. I assumed at once that this obstruction was something foreign, or a malignant growth. In my effort to obtain a section for microscopic examination, the cutting forceps revealed an encysted mass, containing what proved to be corroded and disintegrated metal, and I have here in my hand, the head of an iron screw, all that was left to verify the nature and character of the disturbance. This, which was undoubtedly placed there by the child was the beginning of this trouble, some two years before, and was the source of all the subsequent disturbance. I have no word of comment or criticism for those who worked so diligently to relieve this condition, but will add that all the symptoms I could gather from the history of the case from beginning to end, pointed unmistakably to the presence of a foreign body.

Appreciating the fact that some of you may differ with me in your ideas of the management of many such connitions, I will, at the risk of taxing your patience, point out more definitely and explicitly, what seemed to me the most culpable errors and abuses in the conduct of these several cases, hoping that it may provoke comment, favorable or otherwise, which will be received with the greatest consideration.

The evident lack of comprehension of the condition of things in the first case was very greatly deplored, for had it been otherwise, and the excessive use of the cautery withheld, the normal functions of the mucous membrane might have remained unimpaired, and the posterior obstruction removed without appreciable detriment to the other tissues. Hence, I have no hesitation in condemning the use of the cautery, unless, perchance, it falls into the hands of one with infinitely more discretion and ability than was manifested in this case.

Much the same criticism would apply in the second case, where the escharotic was indiscriminately used over the middle and inferior turbinates, resulting in their extensive adhesions to the septum, all of which could have been avoided had proper precautions been adopted after the application of the acid. I should question the propriety anyway of using caustic acids in cases of this kind. It is always difficult to confine the application to a limited area, and always produces great discomfort to the patient by increasing

the pain and discharge. The Galvan-cautery or bone forceps, judiciously used in experienced hands, will be much more effective, with an absence of many of the distressing symptoms.

In the third case, it would be difficult to conceive how any observer, competent to use the nasal speculum, could possibly avoid finding the growths that partially obstructed the nasal cavities, producing the reflex conditions mentioned. Further comment is unnecessary, as no question could arise concerning the feasibility of an operation when such conditions exist.

The results in the fourth case, where were evidences of extensive surgical interference, showed conclusively that the work had been excessively overdone. While I concede the wisdom and necessity of removing the turbinates in extreme cases, and have seen remarkable benefits resulting therefrom, yet I am constrained, after recalling my observation of these and other cases, to sound a word of warning to those who rather recklessly and without experience resort to this procedure, when less radical means would effect greater relief with less possibility of unpleasant consequences.

As was demonstrated in one or two of the cases related, the great mutilation of the parts will frequently remove sensitive areas which are highly essential to the preservation of many of the normal functions of the nose, leaving in their place hard, cicatricial, impervious tissue, that is absolutely devoid of sensibility.

In the fifth and sixth cases where the septum was involved, the errors were so apparent, and the correction so simple, that it is hardly necessary to dwell upon them. Suffice it to say that I should always deprecate the removal of much of the cartilaginous portion of the septum, unless I was very positive I could approximate the surfaces after the removal. A large aperture in the septum is often unimportant, but it is always a receptacle for offensive mucus, and to a sensitive person, exceedingly disagreeable.

The failure to locate the foreign body in the seventh case, would, I presume, from a surgical standpoint, be considered reprehensible, but knowing something of the difficulties attending the examination and manipulation of a small child, I am inclined to be charitable, particularly when the foreign body is lodged well back on the floor of the nose, and the parts distorted from excessive swelling.

In closing I wish to state to those who follow this line of practice exclusively, that some of this work that I have reviewed, was not from the hands of experts, but rather from some of our professional brethren who do many of these operations on the side, simply for recreation and pastime.

If the presentation of these few cases, and the comments offered are of sufficient importance to awaken a little keener interest in this department of surgery, I shall feel that the object and purpose of this paper have been fully attained.

"There are just as good sea serpents in the sea as have ever been seen."—
Puck.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.
Editors and Proprietors.

W. H. WAKEFIELD, M. D.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.
J. HOWELL WAY, M. D., Waynesville, N. C.
J. ALLISON HODGES, M. D., Richmond, Va.
S. WESTRY BATTLE, M. D., Asheville, N. C.
GEO. G. THOMAS, M. D., Wilmington, N. C.

R. L. PAYNE, M. D., Norfolk, Va.
H. S. LOTT, M. D., Winston, N. C.
J. W. LONG, M. D., Salisbury, N. C.
H. A. ROYSTER, M. D., Raleigh, N. C.
ALBERT ANDERSON, M. D., Wilson, N. C.

J. P. MONROE, M. D., Davidson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

SPECIALISM IN MEDICINE.

A recent Bulletin of the American Academy of Medicine contains several articles by specialists and general practitioners upon this much discussed subject. As usual the views expressed have been somewhat varied, but in the main it was admitted that the specialists were here to stay, not from artificial circumstances, but because they filled a necessary position in medicine. The opinion was pretty unanimous, however, that it was exceedingly unwise for a young man to rush into a specialty without having first done general work for a certain time, of variable length in the opinion of the different speakers. It was very aptly remarked during the discussion that the specialist is not made, nor born—he grows, and that the man who cannot succeed in general practice is not likely to do so in special work; the qualities which command success are alike in each instance. The excessive multiplicity of specialties was regarded as an evil which would probably correct itself.

The domain of medicine is now so vast that it is manifestly impossible for one man to keep up with the advancement along all lines, much less to become skillful in the treatment of all the ills to which flesh is heir, but a physician who confines himself strictly to the study of one class of diseases to the ignoring of the others will sooner or later realize that his medical horizon is very much contracted and his medical judgment narrow.

THE CHARACTER OF THE AUTHOR OF "SCIENCE AND HEALTH."

To the mentally balanced individual there are few things so calculated to arouse astonishment as the establishment and spread of so-called Christian Science, and the influence wielded over so many persons of seemingly average intelligence and common sense by it and its priestess, Mrs. Mary B.

G. Eddy. Meriting as it does, neither the name of religion nor of science, and utterly unreasonable in the absurd conglomeration of meaningless terms in which its extravagant claims are set forth, it has nevertheless become the fetish before which hundreds of deluded victims bow. Its spread among a civilized and cultured people is only another proof that human nature is ever the same, in the first as in the twentieth century; in the person of an educated American, and that of the ignorant savage.

We note a recent account in the lay press of a libel suit brought by a former disciple of Mrs. Eddy's for one hundred and fifty thousand dollars. It is set forth in the complaint among other things that this priestess of humanity not only claims to restore the sick and awaken the dead (for a money consideration) but that she from "motives of retribution and revenge," employs her alleged mental powers to produce sickness and death among those of her followers, or their families, who have waxed rebellious to her authority. It appears then that the author of "Science and Health" is not an unumixed blessing to humanity. The most surprising part is not the extraordinary claims made by this colossal egotist, but that at this period of the world's history there should be people who sincerely believe this sort of thing. We of the South are familiar with beliefs of this kind among the more ignorant class of negroes, but had not supposed that such an anachronism could find a congenial atmosphere in the vicinity of cultured Boston.

A Massachusetts paper has recently published the result of an investigation of the private character of Mrs. Eddy, which is doubtless a surprise to many people who have hitherto regarded her as a kindly fanatic. The article in question shows that this priestess of humanity is not only the possessor of great wealth, made out of the susceptible individuals who stand open-mouthed to swallow her stories, but is so vindictive and venomous in her hatred as to arouse the most superstitious dread, of her supposed occult powers, in the mind of her disciples. The newspaper conducting the investigation claims to have legal proof that instead of being in the robust health which is her boast, Mrs. Eddy is in reality a physical wreck, and is herself a victim of the morphine habit. A distinguished writer says that all the "mind sects except Christian Science have lucid intervals, in which they confess that they are not the equals of the deity."

Necrology.

Dr. W. B. Norment, of Rowland, N. C., died in September.

Dr. W. E. Turlington, of Benson, N. C., whose death occurred a few weeks ago, was a member of the State Society.

Dr. L. C. Reeves, of Blowing Rock, died of appendicitis, on October 7th.

Dr. D. S. Stanford, of Hamptonville, N. C., died on October 11th, of fever.

The Pullman Car Co. is being sued by a man who claims to have contracted consumption in a sleeping car.

Medical News and Items.

Kentucky Towns, along the Ohio and Kentucky rivers, are having almost epidemics of typhoid fever.

Free Medical attention for its employees and their families is being provided by The Washington Traction and Electric Co.

The University of Pennsylvania prints a Spanish edition of its catalogue to attract students from the Antilles and South America.

The Cosmopolitan for October presents the usual assortment of interesting matter. Mark Twain gives his experience with a Christian Science woman, who insisted he had no pain—that matter didn't exist except in the imagination—yet she sued him for substantial dollars when he gave her an imaginary check in payment for her services.

The Trustees of the University of Pennsylvania have appointed Dr. James Tyson to the professorship of the theory and practice of medicine, the position so long and honorably filled by the late Dr. William Pepper. Dr. John H. Musser and Dr. Alfred Stengel have been made professors of clinical medicine in the same school. All these gentlemen have been distinguished teachers in the university for many years, and all are well known to the medical profession as authors of standard text-books.—*Med. Age.*

The Medical colleges of Baltimore have decided that unless the city appropriates money for the maintenance of the dispensaries connected with them, these dispensaries will be closed. Prior to 1898 the city gave about \$1,000 annually to these institutions, the State giving double. For the current year the city has made no appropriation, the dispensaries having been kept open by the colleges. The latter will treat State patients in their hospitals as heretofore.

A Hospital. Burned.—The destruction by fire of the St. Vincent De Paul Hospital at Norfolk, Va., September 25th, was a most deplorable misfortune, since there was not only the great property loss to the hospital, but there were four persons burned to death and four injured more or less seriously. Among the killed were Miss Pippin, of Tarboro, N. C., who was there for operation, which was to have been performed the next day, and Cherry Boswell, a three-year-old child from Lewiston, N. C., who was undergoing treatment for club-foot. Two firemen and two nurses were seriously wounded. The loss is estimated at \$500,000, with \$33,000 insurance. It is probable that the hospital will be rebuilt.

Dr. J. Ackerman Coles, of Newark, New Jersey, has presented to Jefferson Medical College, Philadelphia, the following gifts, in recognition of the love and high regard entertained for the college by his father, the late Abraham Coles, M. D.: a beautiful Carrera marble portrait bust of William Harvey, the discover of the circulation of the blood (of heroic size, this bust and its pedestal were executed at Rome, Italy, in 1869, by the distinguished sculptor, Horatio Stone); The Works of William Harvey, M. D., physician to the King, translated from the Latin, with a life of the author, by Robert Willis, M. D.; a bronze medallion life-size portrait of Abraham Coles, and an imported life-size bronze copy of the celebrated Roman antique statue of the boy extracting a thorn from the sole of his foot.

Book Reviews.

Progressive Medicine—Volume III.—A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 440 pages, 11 illustrations. Lea Brothers & Co., Philadelphia and New York.

The third volume of "Progressive Medicine" is fully up to the high standard of the preceding volumes. The present volume contains a section on "Diseases of the Thorax and its viscera, including the Heart, Lungs and Bloodvessels," by William Ewart, M. D. F. R. C. P. On the "Diseases of the Skin," by Henry W. Stellwagon, M. D. On "Diseases of the "Nervous System," by William G. Spiller, M. D., and on "Obstetrics" by Richard C. Norris, M. D. The editor and publishers are to be congratulated upon the excellent character of this publication and we take pleasure in again recommending it to the profession.

A Text-Book of Pharmacology and Therapeutics, or the Action of Drugs in Health and Disease.—For the use of Students and Practitioners of Medicine. By ARTHUR R. CUSHNY, M. A., M. D., Aberd., Professor of Materia Medica Therapeutics in the University of Michigan Medical Department, Ann Arbor. In one handsome octavo volume of 728 pages, with 47 engravings. Cloth; \$3.75, net. Lea Brothers & Co., Philadelphia and New York, 1899.

This is an excellent work on a subject upon which the members of the medical profession are in need of special enlightenment. The author defines pharmacology, as "the study of the organism rendered abnormal by drugs," differing from therapeutics, which he defines as "the art of applying drugs in disease." The scope of the work will thus be apparent.

As a knowledge of the physiological action of drugs exhibited in disease is necessary for their scientific application, the value of this treatise becomes evident, for a knowledge of the action of remedies in health is needful in order that diseased conditions may be properly modified and abnormal functions be directed into normal conditions.

It is a book which should be in the possession of every physician who prescribes medicines, because of their physiological effects, rather than because they are reputed to cure certain diseases.

Minor Surgery and Bandaging.—By Henry R. Wharton, M. D., Demonstrator of Surgery in the University of Pennsylvania. New (4th) Edition. In one 12mo volume of 594 pages, with 502 engravings, many being photographic, Cloth, \$3.00 net. Philadelphia and New York. Lea Brothers & Co.

This excellent work, now in its fourth edition, has met with merited appreciation at the hands of the profession. It contains in brief and concise form information upon a variety of subjects that are of daily use to the physician; besides which the present edition includes a chapter on surgical bacteriology and a section descriptive of the various major operations which can be practiced with advantage upon the cadaver, such as amputation, ligations, excisions, introduction of sutures, intestinal enostomosis, tracheotomy and intubation and operations upon the bones, tendons and nerves. It is needless to say that these additions add greatly to the value of the present edition, both as a ready reference work for physicians and a handbook for students.

Southern Surgical and Gynecological Association.—*Transactions*, Vol. xi., 1898.—As usual, this is a handsomely bound volume, covering over

five hundred octavo pages. The papers appearing in this volume have appeared in the various medical journals. They are from the pens of some of the foremost medical men in the South. A striking feature of the Memphis meeting, is that there were thirty-two members in attendance and thirty-two papers presented.

What a Young Husband Ought to Know.—By Sylvanus Stall, D. D. Vir Publishing Co. Hale Building, Phila., Pa. Price, \$1, net.

If marriage is a divine institution, if the tenderest and most sacred relations of life cluster about the family and the home, then no words of praise can be too strong with which to commend this exceptional book. Its author shows himself capable and courageous. Its paragraphs are candid and clean. In these pages the author lifts the sacred relations of married life out of the impure and vile thinking which have degraded manhood, debased and debauched womanhood and robbed marriage and home of the blessing and happiness which God intended. The author has treated the most delicate and sacred subjects with that same ennobling force which characterizes the preceding books of the series, addressed to boys and to young men, and which won for these books unsolicited and hearty commendation at the international convention of the Young Men's Christian Associations at Grand Rapids, Michigan, and at Mr. Moody's World's Students' Conference at Northfield, Massachusetts.

The *Literary Digest* of October 7th, devotes several pages to "Admiral Dewey's views on matters in the Philippines," and also contains several able articles on "Judges and Campaign Contributions." The conviction of Captain Carter also receives attention, and the views "pro and con" regarding the recent announcement that women would no longer be admitted to employment in various departments of government service, throw side lights on the matter: "Dime Novels and Crime," "Insanity in Kansas," "Wrecking a Bridge by Electricity," "Has the Biblical Ophir Been Found?" "Sexual Knowledge for the Young," and many other interesting items make up the contents of this most excellent publication.

THIRTEEN DOLLARS FOR FOUR DOLLARS.—A book the price of which when originally published was twelve dollars alone and a year's subscription to the *New York Lancet* (Address 156 Fifth Ave., New York) is offered for four dollars. The book is Flint's "Encyclopedia of Medicine," a work covering practically every subject in medicine.

New, revised, 1898 edition; 1,558 pages; 8vo; cloth. As has been aptly said, "A book for the desk and not for the shelf."

Thousands of endorsements have been received.

"After several weeks of practical use I must say that I cannot see how you give so much for the money. I have a very good library, but when I want an idea *quick* I go to Flint's Encyclopedia. It serves to review, and not rarely to give points not found elsewhere. I feel it my duty to thank you for such a book.

"DAVID RALPH BOWEN, M. D."

The *Medical News* says—The text is brief, clear and explicit. As a volume for ready reference it occupies a field wholly by itself.

The *Dominion Medical Monthly*—Judging from the ability of the over two score leading English and American contributors, also from the scope and character of the work, one is compelled to acknowledge its great value as a book of reference.

Review of Medical and Surgical Progress.

An Epitome of Surgical Progress.

By JOHN H. GIBBON, M. D., of Philadelphia.

Interscapulo-thoracic Amputation.—By Robt. G. Le Comte, M. D., of Philadelphia (*Illustrated Annals of Surgery*, for Sept. 1899).—The author discusses the various methods which have been employed in removing the entire upper extremity for disease, and then describes a new method which he found very successful in the case reported. The great danger of the operation is, of course, the loss of blood, and the methods formerly used for the prevention of hemorrhage are nine. (1) Simple compression of the subclavian vessels; objectionable because of its uncertainty and the danger of allowing entrance of air into the vein. (2) Resection of a portion of the clavicle and compression of the vessels; previous objection applies here also. (3) Formal ligation of the subclavian artery, as a preliminary step; both difficult and tedious. (4) Formal ligation some time previous to amputation; same comment as for No. 3, and the danger of gangrene if too much time intervenes between ligation and amputation. (5) Resection of middle portion of clavicle and ligation of artery, the vein being left unsecured until just before it is divided; here there is danger of wounding the vein during the operation. (6) Ligation of the artery and leaving the vein and brachial nerves to the last tissue to be divided. Same comment as for No. 5. (7) Beginning at the scapula and working forward leave the great vessels until nearly the close of the operation. This would give the greatest amount of hemorrhage, as the supply of blood is not cut off from field of operation. (8) Resection of middle portion of clavicle with ligation of both artery and vein. This is the most generally recommended and employed of all the methods. By referring to the experience of operators who have employed this method (Macnamara, Lund, Von Langenbeck, Keen, and others), he shows that the operation is not altogether satisfactory. Difficulty is often experienced in the resection and also in finding the vessels and ligating them promptly. Keen, for instance, found this procedure to take up more time than the amputation itself. The sawn end of the clavicle is always liable to injure the ligated vessels during the following manipulations and in malignant diseases of this bone it is much safer to remove it altogether. (9) Disarticulation of the sternal end of clavicle with compression of the vessels. This was done in 1837 by Mussy, but has subsequently been condemned by all authorities, because the operator had the misfortune to have air enter the vein, after the amputation was completed and before the ligature was applied.

(10) This is the method of the author, first to disarticulate the sternal end of the clavicle and then to ligate both artery and vein. This procedure was followed in the present case with most satisfactory results.

The patient, a man, aged 49, had suffered from an osteo-sarcoma for three and a half years, during which time he had undergone two operations for its removal. At the time of admission to Pennsylvania Hospital he had a large fungoid mass involving the left shoulder, both soft parts and bone. At a previous operation Dr. Ashhurst had removed the acromion and a portion of the clavicle.

The patient was a hard drinker, had lost a great deal of flesh and suffered frequently from hemorrhages from the growth which, at the time of his admission, was ulcerated.

The operation occupied one hour and six minutes. The disarticulation of sternal end of clavicle and the ligation of vessels was not difficult. He ligated first the artery and then, allowing the blood in the extremity to flow back into the general circulation, the vein was ligated. During the rest of the procedure there was little or no hemorrhage. The patient made a good recovery, being out of bed on the ninth day.

(It was my privilege to witness the employment of this new method of controlling hemorrhage in this amputation, and I can endorse it most heartily. Within the past few days I have seen the patient, six month's since his operation, and he is perfectly well, being regularly employed in running an elevator.—J. H. G.)

Vaginal Celiotomy: Its Scope and Limitations.—By J. Riddle Goffe, M. D., of New York (*Medical News*, Oct. 7, '99).—In this article the author strongly advocates the vaginal route in operations upon the pelvic organs of the female. He calls attention to the gradual perfection of the technic of this method, so that it is no longer used simply to puncture and drain, and for complete hysterectomy, but, that nearly every operation upon the uterus and its appendages can now be performed per vaginam. He uses the anterior incision almost entirely, making the transverse cut across the vagina and then a longitudinal one through the anterior vaginal wall, thus making the separation of the bladder easier and giving more ample room for work. He mentions the fact that no bladder disturbance follows this operation, and says the wound always heals promptly. During the past three years he has used this method in every case, excepting three, that he has operated upon, and for nearly every condition found in the female pelvis. He refers particularly to the ease with which the cases of retroversion can be handled through this incision—that the adhesions can be separated, the uterus and appendages easily brought into view, and the round ligament shortened. Even large cysts of the ovary when not adherent to intestine can be tapped and removed through this incision. The author speaks of one case of this sort where he injured the sigmoid flexure very extensively and had to go into the abdomen above and do a resection, but the patient recovered satisfactorily. Besides claiming for this method a better access to the organs diseased, he also says that the shock is less than in abdominal section and, of course, there is no apparent disfigurement and little or no tendency to hernia.

(The vaginal route for operations upon the female pelvic organs has not been so extensively employed by the gynecologists in Philadelphia as it has in New York, and it is not thought to be as safe as the abdominal route, except in the hands of experts.)

A New Method of Reducing Old Dislocations of the Lower Jaw.—By Theodore A. McGraw, M. D., of Detroit, Mich. (*Medical Record*, Oct. 7, '99).—The author reports a case of dislocation of the jaw of five months' standing, in which reduction, under anæsthesia, had twice been unsuccessfully attempted, although every recognized means was employed, except operation. One week after the last attempt he made an incision below the zygoma on each side, separated the fibres of the masseter muscle, passed over the sigmoid notch a steel hook, especially devised for the purpose, and after prolonged traction downwards and backwards, with additional upward pressure, made by an assistant, on the chin with corks placed between the molar teeth of the two jaws, he was finally successful in obtaining the reduction. Patient had complete restoration of function. The author claims originality for this method of making traction with a hook passed over the

sigmoid notch, and it will certainly commend itself to any one having to deal with this very obstinate and rather rare condition of old dislocation of jaw.

Three Abdominal Sections In the Same Woman Within Five Years.—S. W. Pryor (*Georgia Journal of Medicine and Surgery*, August, 1899), reports this unique series of events. At the first operation, done in June, 1893, a four-and-a-half-pound pedunculated fibroid tumor was removed, the stump being treated extra-peritoneally. Five years later (July, 1898), a Cæsarean section was successfully performed for obstruction of birth canal by another fibroid tumor. The tumor and uterus were not removed on account of the patient's general condition. The tumor continued to grow and its removal became necessary in three months, a supra-vaginal hysterectomy being done in September, 1898, followed by good recovery.

H. A. R.

Uterine Hemorrhage.—Langstaff (*Brooklyn Medical Journal*, October, 1899), calls attention to the fact that curetting or plastic operations on the uterus often fail to relieve bleeding from this organ. The source of the hemorrhage must always be carefully sought for. The prime factor in the etiology of the cases where curettage fails, may be found in abnormal or diseased conditions of the uterine adnexa especially, or only in that of the ovary. A case is mentioned in which the writer curetted a patient for metrorrhagia, caused by retention of placental debris after an abortion. Hemorrhage ceased for a day, but recurred two weeks afterward when preparing to curette again. The woman complained of pain in the lumbar and hypogastric regions, and on examination a prolapsed and sensitive ovary was found in posterior cul-de-sac. A boro-glyceride tampon was applied with the patient in the knee-chest position on two successive days and the hemorrhage ceased, while two weeks afterward, no trace of the ovary could be found on ordinary palpation. The conclusion is reached that the retention of placental tissue caused the bleeding in the first instance, and that in the second, it was caused by the stimulus given by an acutely congested ovary.

H. A. R.

Fracture of the Patella.—Estes (*International Jour. of Surg.*, Sept. '99), in a series of articles on fractures, protests against dogmatic statements to the effect that the non-operative treatment of patellas fracture is unsatisfactory and unscientific. He has treated 15 cases with good functional results in each and, in several, bony union. Every case of fracture of the patella should be individualized. Treatment is (a) mechanical or (b) operative and depends upon the degree of separation of the fragments and their condition, the degree of effusion, amount of injury to soft tissues and complications. He thinks the operative treatment should *not* be the rule and should be employed by men with only the best technique. Many failures are reported and 2 per cent. of the cases collected by Powers died after the operation. A compound fracture of the patella is an invitation at once for suturing the fragments. Mechanical treatment is indicated in any simple fracture, with no excessive effusion, moderate separation and tilting of fragments; old age of patient, serious complicating injuries and especially, conditions and surroundings which will not admit of thorough asepsis.

H. A. R.

Plastic Surgery.—(*The American Gynæcological and Obstetrical Journal*.) Surely no branch of gynæcological work is so frequently indicated by the pathologic conditions to which women are subject as this, and with equal

certainly may it be said, that none has been so neglected by gynecologists, none so little understood and appreciated and none in which experts are so few. Owing to the immunity from a fatal result which the conditions of plastic surgery generally carry with them, the bungling failures and the consequent suffering inflicted upon patients in its name, only partially reported though they be, are appalling. Certainly it is no exaggeration to say that, were a tenth part of the ignorance of principles and technique turned into practice in abdominal operations, the humane sense of the profession would forbid the performance of laparotomy.

Let us consider for a moment the attitude of gynecologists towards plastic surgery. It is interesting and instructive. First, among the younger men it is very, very rare to find one who will hesitate a moment to undertake any recognized plastic operation, even though he have never seen a similar one done and is avowedly without experience in such work. Though profoundly ignorant of why such an operation is indicated in such a case, and totally oblivious of the mechanical difficulties involved, it is sufficient for him that such operation has been declared as the indication for the pathological condition which he recognizes. He does the best he can under these untoward circumstances and feels justified.

The attitude of the older men, who have themselves gone bravely through the stage just described, is quite the reverse of this. To many of them one thing has become very clear: either they have failed to meet the expectations of plastic surgery, or it has generally failed to meet theirs. Very naturally the latter horn of the dilemma is almost universally adopted, and this aspect of the question is to-day openly taught; as we have already had occasion to point out in some recent editorials. Thus, plastic surgery is described as "Minor Surgery," for its belittlement, and receives the grudging acknowledgment that it is sometimes a necessary makeshift for those common and very frequent conditions for which it and it alone is the indication. But the stronger and more positive minds are not satisfied with seeing an indication whose neglect is a standing reproach. Unable either to fulfill or to obviate this indication, they have gone abroad, like certain industrious members of the animal kingdom, for means to bury it out of sight and leave a clear road. To this endeavor we owe the adoption of Alexander's operation and all the various methods of suspension for prolapsus uteri due to laceration of the pelvic floor. To the same category belong Lefort's operation and others of similar purpose. But of all these methods the most straightforward and logical, whose ideal simplicity indeed never ceases to excite our admiration, is vaginal hysterectomy for prolapsus uteri. It is most ingenious and admirable—from a certain standpoint. At one stroke it removes not only the disease but the indication as well. It settles the question and leaves nothing to be said—or done.

Yet, while this truthfully depicts a very large number of gynecologists, who stumbling over plastic surgery in their youth have bungled it through their middle years till the irritation of shame has forced the cry of failure, we must not forget that there is another moving as steadily in an opposite direction. There we may see men who seriously undertook the study of plastic surgery in the outset of their career, and who, recognizing the difficulty of acquirement, have earnestly devoted themselves to the mastery not only of the mechanical knowledge necessary, but to the special technique. Such men now count upon the certain results of plastic operations with almost mathematical accuracy. They may predict with certainty not merely a symptomatic cure but an anatomical one. And the indications in

the disease is squarely met and completely fulfilled. It is neither ignored, covered up, nor ablated.

Consider the requirements of the expert plastic surgeon. He must have an exact knowledge of the anatomy and pathology of the pelvis, and a correct comprehension of its physiology. His extensive mechanical knowledge must be instinctive as well as acquired, for no two cases present exactly the same conditions to be remedied by plastic work. He must have years-acquired facility in using his instruments—a combination of strength, endurance and great delicacy of manipulation. He must have an abiding sense that his aim is not to remove but always to restore. And finally he must love his work for the opportunity it affords him to restore a mutilated part almost to that perfection which it originally received from the Master Hand.

It is this realization of the great and peculiar requirements necessary to the making of a plastic surgeon in fact, which endows this special work with a dignity possessed, in our opinion, by no other branch of gynaecology.

Formalin in the Treatment of Sweating of the Feet.—The employment of Formalin in the sweating of feet was recommended by Orth as early as 1896 (*Berl. Klin. Wochenschr.*, No. 13), and also in Liebreich's Encyclopædia the value of Formalin is pointed out under the heading, "Sweating Feet." These recommendations refer to the employment of only very dilute Formalin solutions. Orth recommends to sponge the feet morning and evening with a weak Formalin solution (1 tablespoonful of the official Formalin to 1¾ pints of water), but in this mode of employment the deodorizing property of Formalin is only carried into effect. By this means the disagreeable odour is removed, although only for a short time; removal of hyper-secretion, and its consequences, maceration of the epidermis, &c., does not take place. Recently, Staff-Surgeon Dr. Gerdeck (*Deutsche Militarärztl Zeitschr.*, No. 4, 98) has carried out experiments with concentrated Formalin solution on soldiers, which have led to very favorable results.

When using strong Formalin solutions, besides the deodorizing and antibacterial properties of Formalin, its action upon albuminous substances is also shown, that is, on substances containing gelatine and keratine, with which it forms insoluble compounds, after drying horny combinations which resist decomposition and the influence of water. After painting a certain portion of the skin, the secretion of sweat of this place diminishes considerably, the skin becomes dry, and the cracks and furrows are shown more markedly than before. After the skin has been painted two or three times it becomes shiny, shows cracks and furrows still more, becomes dry and leather-like, and the secretion of sweat is so completely removed that, even in a Turkish bath of 45° to 50° C., lasting half an hour, it is not possible to produce perspiration. If the painting is continued, then the effect penetrates deeper, the epidermis shows cracked wounds, which continue to the superficial layer of the cutis. They are painful, and apt to bleed if an attempt is made to scale them off; then a scaling process begins, which is at its highest thirty days after the painting took place, and even after fifty days it is not quite finished. If the painting has been done more than three times, then it is, even after fourteen days, not possible to produce secretion of sweat in a Turkish bath. After about three weeks, slight secretion can be observed, in a Turkish bath, which, after six weeks, does not reach the height of secretion present before painting was started.

The treatment is as follows:

In the morning, midday, evening, and the following morning, the skin

of the sole of the foot and heels are painted with official Formalin (by means of a brush, with a long handle for the protection of the hands), using for the whole process, at an average, $2\frac{1}{2}$ drachms of Formalin. The skin of the toes on the extensor side, and intervening folds of toes, should only be painted twice, in order to avoid on this tender skin cracks of the epidermis. The sweat secretion ceases mostly after the third, always after the fourth painting. The disagreeable odor disappears, the skin is hardened and dry. If disagreeable odour or secretion is still present between the toes, painting once or twice with a 10 per cent. solution of Formalin will be found sufficient to remove it. When this treatment is completed, the boots of the patients should be disinfected by dropping into each boot 4 to 6 drops of concentrated Formalin. About three weeks after the painting has been discontinued, slight secretion of sweat will be noticed, which increases gradually. Two or three months after, a relapse takes place, which, however, seems to be milder than the first attack. If weaker Formalin solutions are used, the painting should be done more frequently. The deodorizing action can even be observed with a 3 per cent. solution, but only from a 5 per cent. solution secretion is influenced. The Formalin treatment has the great advantage over the usual chromic acid treatment of being harmless, because Formalin is non-toxic; relapses also occur later than after chromic acid treatment.

To use Formalin dusting-powder in place of painting is not suitable, because an even distribution and influence upon the diseased part cannot be obtained. A 3 to 5 per cent. powder, however, does excellent service when dusted into the stockings, by which the smell of sweat is completely removed. —*Therapist*, Aug. 15, '99.

Picric Acid in Superficial Burns.—MacDonald (*British Medical Journal*, May 13, 1899), states that it is obvious that an antiseptic which, by its mode of action, directly promotes rapid healing will give the best results in such wounds as burns and scalds. By the use of picric acid nature's method can be closely imitated, and instead of hindering the healing process it may be directly assisted.

The artificial scab produced by picric acid consists of coagulated albuminous fluids, reinforced by masses of detached epidermis. The scab is formed at once, thus lessening the chances of sepsis subsequently occurring under it. It has always been an axiom in burn treatment to preserve as far as is practicable the raised epidermis of the vesicles, for no dressing we may substitute can protect the underlying injured surface half so well. Picric acid preserves this layer, and by virtue of its hardening action transforms it into a large protecting scab. Healing in burns of the first and second degrees takes place rapidly without suppuration.

The technique of the method is very simple. The punctured vesicles must be accurately flattened out. No impermeable material must be placed over the simple gauze, which should be dipped in a saturated aqueous solution of the acid and applied after being squeezed fairly dry. Absorbent wool and a light gauze bandage further encourage evaporation, and thus retard the growth of any bacteria which may have gained access to the wounded surface. A pair of thin rubber gloves may be used to avoid the unpleasant staining of the dresser's hands by the acid. Renewal of the dressing need not take place for four or five days, unless there are clear signs of suppuration. The gauze is best carefully stripped off in a dry condition.

In the writer's experience picric acid has not caused toxic symptoms either in children or adults. He ventures to say that a closer examination

of the so-called toxic cases will reveal the fact that the symptoms were precisely those of septic absorption so commonly observed in grave burns under any treatment.

The advantage of picric acid in superficial burn treatment may be briefly summed up as follows: (1) Simplicity of application; (2) painlessness; (3) rapidity of healing due to (a) epidermization under scabs, (b) a favoring of epithelial growth, (c) a minimum of suppuration; (4) absence of local irritation, or of general toxic effect; (5) a smoother, more natural cicatrix than that obtained with other methods.—*Review of Reviews.*

Extreme Anemia, After Post-partum Hemorrhage, Treated With Nucleo-Albumens and Bone-Marrow.—By C. F. Bachmann, Ph.D., M. D., Alleghany, Pa., late private assistant to Prof. O. Huebner, Univ. of Berlin; Privat Docent Charity Hospital, Berlin; also assistant to Prof. von Leyden, etc.—The prompt and decisive results obtained in the following case of anemia, secondary to a severe post-partum hemorrhage, induce me to report it for publication:

Mrs. O. T., white, aged 23, primipara, weight 145 pounds; passed successfully through the ordinary diseases of childhood, and two years ago I treated her during an attack of typhoid fever, from which she completely recovered. About a year ago she became pregnant. The course of pregnancy was normal, with the exception of a slight edema and a varicose condition of the veins of the lower extremities. On January 2, 1899, she was taken in labor. Position, R. O. P. Owing to an excessively large head, I was obliged to apply the forceps without anesthesia. The placenta was firmly adherent, and, after an hour's wait, was delivered by hand. Scarcely had the placenta been delivered when a frightful hemorrhage occurred. I scooped out all clots and fluid blood and controlled the hemorrhage by injections of hot water, compression and tamponage. So much blood had been lost as to cause a sub-normal temperature and a small, weak pulse of but 32 to the minute; extreme anemia, great shock and prostration, thirst, sighing respiration, etc. I administered strychnine sulph., gr. 1-20, hypodermically; also, brandy and ext. ergot. The hemorrhage occurred at about 8 a. m., and by noon the patient had revived to some extent, but was suffering from nausea and occasional vomiting, for which I prescribed Liquid Peptonoids and Elixir Lactopeptine with good effect.

January 3, I found the patient somewhat improved, but very weak and almost bloodless, her lips being literally "as white as snow." I then ordered Hemaboloids (a preparation of the iron-bearing nucleo-albumens of the vegetable food stuffs, reinforced by bone marrow, beef peptones and nuclein) 3ij every three hours; also stimulants and a nourishing liquid diet. The excellent results obtained from this treatment are best shown by the following table:

	Weight. Lbs.	Hemoglobin. Per Cent.	Red Blood. Cells
January 3.....	135	61	3,450,000
January 7.....	138	66	3,509,000
January 14.....	140	71	3,760,000
January 21.....	140½	76	4,005,000

I did not see the patient again until February 12, when she appeared well and strong, and, to use her own words, felt "tip top." Weight, 140 pounds (the slight decrease probably due to excessive nursing); hemoglobin, 81½; red cells, 4,210,000. Patient was last seen a few weeks ago and was in first-class condition. Considering the profuse hemorrhage and the extreme secondary anemia, the result in this case was indeed satisfactory. I have

prescribed this preparation quite extensively and find it of great merit as a readily assimilable tonic in anemia, from whatever cause—chlorosis, convalescence, etc.

Since this case I have used Hemaboloids in several other cases of convalescence from labor with gratifying results.—*The Medical Council, July.*

Hippocratic Oath.*

By A. M. TRAYWICK, M. D., Nashville, Tenn.

Hippocrates, born on the Island of Cos, B. C., 460, was the most celebrated physician of antiquity. He belonged to the Æsclepiadæ—being the seventeenth in descent from Æsculapius. He received his instruction in medicine from his father and from Herodicus. Besides being a practitioner of medicine, he was a great philosopher. After spending some years in traveling through Greece, he settled and practiced his profession at Cos, finally, at about the age of eighty, dying at Larissa. Hippocrates was guided in his profession by the highest principles of honor and humanity. The Hippocratic oath, the formula of which is ascribed to him, bound all who sought to practice the noble healing art in the most rigorous bonds of honor and brotherhood. (Text of oath omitted.)

After practicing medicine for more than a score of years, and studying men almost as much as medicine, and noting the motives that prompt the actions of men in connection with the practice of medicine, and in studying this in connection with the Hippocratic oath, I am able to reach some conclusions :

1. Hippocrates, in the opening sentence of the oath, recognized the divine source of the power to heal.

2. The sacredness of the oath, which involves the idea of a professional obligation, is indicated by his appealing to the gods by name as witnesses to his supreme purpose to hold aloft the highest standard.

3. We also are made to realize his recognition of the high position occupied by the medical preceptor, and the reverence due him as one who conveys the knowledge of the high art.

4. Hippocrates emphasized the obligation to transmit a knowledge of medicine and the power to heal to those who are qualified both by ability and principle to use such knowledge rightly.

5. He brings out the sacredness of life, and the obligation of a physician to save and preserve it by proper treatment.

6. This physician of ancient times showed his deep conviction of moral obligations to restrain and keep under control the power conferred upon him and his profession, which might be used to the injury of others.

7. The highest ideal of both *personal* and *professional* life is held up to view.

8. When called in counsel by a brother physician, I should treat him as my host.

*Read before the Tennessee State Medical Society, Nashville, April 11, 1899.

9. When I call a brother physician in counsel, I should treat him as my guest.

10. There is a clear recognition of the limitations of the departments of medical and surgical professions respectively, and an expression of an honest purpose to *keep within those limits*. In this we find the primal elements of an ethical system which has come down to us through the centuries.

11. Hippocrates not only realized, but urged, the sacredness of the physician's trust, and his duty to preserve inviolate the purity and sanctity of the patient's home.

12. The sacredness of professional secrets is incorporated in this oath, especially those secrets the divulging of which would be injurious to the honor and reputation of the patient.

13. The reward which comes from right living, and the inevitable consequences of wrongdoing, are set forth, together with the privilege of enjoying the one or a willingness to abide by the results growing out of a life spent in the service of others.

14. That if these obligations were binding upon a man living in an unenlightened age, they press with the greater responsibility upon us, and are the more binding upon those in the practice of a great profession which has become illuminated and exalted by the Christian ideals of the nineteenth century.

15. We should, therefore, thoroughly study the word selfishness, and should abstain from every appearance of such a hideous characteristic. And in close connection with selfishness, but far more damning to the best qualities of the physician's life, stands that most to be dreaded of all evils—jealousy. The jealous man of all others carries the marks plainly to be read and known of all men, that he is the smallest man in the entire community, and is more to be pitied than feared.

16. To sum it all up in a few words: We must remember that the physician comes in the closest and most sacred relations of life. He sees men and women in their hours of weakness; sees them when judgment and will are overthrown by disease; sees them when the intellect is so shattered and enfeebled by disease that its mastery is lost, and ignoble passions rule unchecked and unrestrained, and there is, therefore, an imperious necessity that he should be a man of sterling integrity and stainless purity—chaste as the untrodden and unsunned snow.—*Memphis Medical Monthly*.

According to the *Journal of the American Medical Association*, the theory that bacteria are indispensable to digestion has been laid to rest at last by Levin's research in the Arctic regions, reported in *Hygiea*, No. 2. He accompanied the Nathorst expedition and examined the intestines of various birds and animals killed. With the exception of one polar bear and two walruses, the intestines were found absolutely sterile, and in these only a few specimens of the bacillus coli were discovered. Bacteria were found in the water, one colony to one cubic centimeter, the number increasing with the distance from the surface. The air was found absolutely sterile. No colds or catarrhs ever occurred among the men.—*Med. Age*.

Publishers' Department.

MESSRS. POWERS & ANDERSON, the energetic successors of Bartlett, Garvens & Co., surgical instrument dealers in Richmond, Va., are meeting with gratifying success. They carry an immense stock of the best makes at "live and let live" prices.

THE YARNALL SURGICAL CO. has outgrown its old quarters on Walnut Street in Philadelphia and has moved to 132 South Eleventh Street, where, with increased stock and facilities, it extends a welcome to all physicians.

IOWA CITY, August 14th, 1899.

EUMETRA PHARMACAL CO., Detroit, Mich.,

GENTLEMEN:—I am in receipt of your letter of the 8th inst., in which you inform me that you received my former letter recommending your Eumetra.

After some further trial of your remedy I am delighted with the results obtained. It is truly an ideal uterine tonic and analgesic. I shall continue to prescribe it with much assurance of success.

If you desire to use this you may do so. Truly yours,

J. C. SHRADER.

I HAD rather a queer experience with your sample of Ecthol. I took it 20 miles North and gave it to Nicholas Diaz. He has had Scrofula for four years and has paid out in that time over one thousand dollars. He took a teaspoonful every two hours for four days, after that a teaspoonful every four hours until he had used two bottles. He walked in here to-day, cured. All signs of swelling and those awful Scrofula sores and blotches on his face are gone. Of course his soft palate was destroyed by the disease long ago, and he thought I could make him a new one. I replied only God can do that. He paid me enough so I can buy more of your remedies, and I shall keep a supply on hand. I buy from Dr. Barry, of Durango, Mex., who orders for me from San Antonio, Texas.

Canatlan, Durango, Mexico.

CHAS. A. BAILEY, M. D.

Sept. 29th, '99.

To Battle & Co., St. Louis, Mo.

F. A. REW, M. D., Imboden, Ark., says: My experience with S. H. KENNEDY'S EXTRAT OF PINUS CANADENSIS was so decidedly satisfactory and gratifying that I prescribed it with a positive assurance that benefit will follow its use. On the principle that "all astringents are tonics," I use the PINUS CANADENSIS, in small doses, in pneumonia, bronchitis, typhoid fever; indeed, where the mucous membranes need a tonic, and recognizing the similarity between mucous membranes and the external skin, I use it in erysipelas, nervous forms of eczema, and wherever the skin needs a tonic. It is all I need in many cases of ophthalmia and gonorrhea. Its special therapeutics would fill many pages, and I am satisfied that we will find yet new uses for it.

Scribner for October gives an illustrated description of "The Water-Front in New York" by Jesse Lynch Williams, that is both interesting and instructive. A song, "Hey Nonny No," by Marguerite Merington; "The Silent Wayfellow," a poem, by Bliss Carman. Joel Chandler Harris in his inimitable style continues "The Chronicles of Aunt Minervy Ann," telling (I.) How she and Major Perdue frailed out the Gossett Boys; (II.) How she joined the Georgia Legislature. An illustrated history of the "Vaudeville Theatre" is given by Edwin Milton Royal.

Jagging Jim—"Ello, Slumpy! Wat's de matter wid yer face and hands? Got de hives?"

Slumpy—"No—got de bees."—*Judge.*

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, NOVEMBER 5, 1899.

No. 9

Original Communications.

Cerebro-Spinal Meningitis.*

By JOSEPH W. IRWIN, M. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Kentucky School of Medicine, Louisville, Ky.

SINCE 1874, three severe visitations and many sporadic cases of cerebro-spinal meningitis have come to my notice. Every variety of the disease and its various complications and sequelæ were observed.

Following the very cold winter of 1873 and 1874, the disease appeared in Evansville, Indiana, and vicinity. Children were the most frequently its victims, and those who first took sick nearly all died. The aged were rarely affected, but a few cases occurred in persons over sixty, and they all died. The percentage of deaths was over sixty, and nearly one-half of those who survived were left crippled mentally and physically, and for them death would have been preferable to the miserable existence to which they were doomed. There were no prodromata. The disease came on suddenly with a chill or chilly sensation, and in young children convulsions often announced the attack. Pain usually began in the back of the head low down, but sometimes it was first felt in front, or on top, or on one side. Very rarely was pain complained of at the onset below the cervical region.

Within a few hours or one or two days, pain, usually lancinating and very severe, extended to the spine, arms and legs, sometimes girdling the chest and abdomen. Vertigo and nausea were early symptoms, the latter often continuing for six or eight days.

Dimness of vision was sometimes complained of at the beginning of an attack, which grew worse, and partial or complete blindness ensued. Divergent strabismus of one or both eyes appeared in some cases within the first two days of the illness. The face wore a peculiar expression of suffering, sometimes a waxy pallor, and sometimes a purplish red with the eyes suffused. Fever was usually not severe, the temperature rarely recording 103°

*Read before the Louisville Clinical Society.

F., and in some cases it was below the normal. The pulse was slow as a rule, but in some cases it would beat as high as 170 to the minute and without any apparent cause the beats would become less frequent until 40 or 50 to the minute were recorded.

At first, in the moderately severe cases, the pulse was full and strong, but after the first day it became weak and irregular. Mental symptoms appeared early, and often were more severe than the other phenomena present would indicate. After a few hours or a few days the symptoms became more severe, and the muscles of the back and neck were set in tonic contractions with the head thrown back beyond the perpendicular. On attempting to depress the chin, the pain in the neck and back was increased. Oposthotonos was present in severe cases and this symptom was especially prominent in most of the fulminant variety. The head and feet would come within a few inches of touching each other. In the fulminant form of the disease death was the only result, and this occurred in from four to seventy-two hours. All the symptoms gave evidence of intense suffering from the beginning. The pulse recorded 200 at times, again falling below the normal and the temperature going up to 106° or 107° F. The respiration was irregular and supracostal. Delirium was often wild, sometimes muttering, which ended in coma and death.

Purple-colored spots of various shapes and sizes appeared on the face, neck, body and legs, which often disappeared suddenly—at times remaining three or four days. Now and then a case was observed with waxy, pale face, feeble, irregular pulse, 35 or 40 to the minute, and temperature subnormal without oposthotonos or pain, which would deepen into coma and death in from four to eight hours. This form of the disease was very rarely seen. The disease in such cases seemed to be entirely confined to the brain. Where death occurred within the first few hours, autopsies revealed nothing of special significance beyond some patches of engorgement along the course of the blood vessels, over the hemispheres, on the side, at the base, and about the medulla. The cord presented similar appearances, though not so marked as the brain. There was no serous exudation.

Another class of cases that died after a week or two showed more marked changes in the brain and cord. The blood-vessels were hyperæmic, inflamed, with deposits of lymph smeared over them and in various patches over the hemispheres, in the ventricles, at the base, in the canal, and about the cord. Effusions, serous or purulent, were found at the base, in the ventricles, and in the canal of the cord. Here and there the membranes were adhered to the brain and numerous minute hemorrhages were observed.

In another form of the disease which was intermittent, the patient died after four or six weeks, or months, paralyzed and exhausted; the autopsies revealed abscesses and degeneration in the brain and cord.

The second visitation of the disease was in 1877, and nothing different from the first was observed. A few cases of small pox occurred at the same time. In both visitations croupous pneumonia preceded some cases, com-

plicated others and became troublesome sequelæ in a few of those who survived the meningeal trouble.

Pneumonia was present before, during or after the disease in one fourth of all the cases I had seen. In a few instances the cause of death was ascribed to it, as it was the most serious feature of the illness.

When the clinical picture of the malady was made up, neither the mycologist nor the ophthalmologist was a necessary factor in determining the diagnosis. A few cases only were observed in which there was any doubt as to the diagnosis, but after a day or two all doubts were removed. It would tax the powers of the most accurate observer to describe every detail of the objective symptoms even though sympathy with the sufferer had sharpened and rendered acute the workings of his special senses. But no great difficulty should be experienced in making a diagnosis when we remember that the disease is prevailing.

In sporadic cases mistakes in diagnosis are more likely to occur. A person in good health, suddenly seized with pain in the head over the hemispheres, on the side or at the base, with pain in the back of neck, in the spine, arms and legs, sometimes girdling the chest and abdomen, with anxious look, a suffused eye, the face flushed or of a waxy pallor, usually a slow pulse 40 to 60 to the minute, with or without fever, respiration irregular, may be regarded as having cerebro-spinal meningitis. Then add to this the vertigo, the disturbed vision, the hyperæsthesia, the sudden changes in temperature, the early delirium and the persistent nausea and vomiting, and the diagnosis becomes more apparent.

Kernig's sign will be present in all such cases. Since my attention was called to it a few years ago, I have not found it absent in any case either of the sporadic or epidemic kind. There is no practical difference in the phenomena of sporadic and epidemic cerebro-spinal meningitis. The same sort of bacilli have been found as the cause of both. Only in very exceptional cases will lumbar puncture be required to confirm the diagnosis.

The prognosis was always very uncertain. Even a mild case would take a turn for the worse, or be so long protracted that death would result from exhaustion. A high temperature was always an unfavorable indication, and it usually preceded death. Intermittent cases were the most protracted, but they usually recovered, and when the first ten days of illness were past without serious complications, recovery was the rule.

There was no time limit to the disease. Some were able to sit up and go about in two weeks, some in three to nine months, and others were not fully well after two or three years. Many of those who survived the acute part of the disease were left crippled mentally and physically for life. When it is remembered that the cerebro-spinal centres are the seat of the disease, any sort of complication or sequelæ may be expected to arise. Mental weaknesses were observed—some were deaf, some were dumb, others were blind, and some were paralyzed. Suppuration of the ear and joints, with swelling of the latter and contractures occurred.

In the treatment of cerebro spinal meningitis two important points were kept in view. One was an early diagnosis and the other the free use of opium. Opium was the most useful in the forming stage of the disease, but it was more or less useful in all stages. It proved useful in relieving pain and preventing mental complications, perhaps by arresting serous effusions into the cavities and delicate textures of the brain; as in like manner it controls an intestinal diarrhoea. Morphia alone was given hypodermically, and the vomiting was often relieved by it as well as the cerebral trouble. One-third or one-fourth of a grain repeated at intervals of a few hours was sufficient to afford relief. In fever the application of ice bags to the head and spine was useful. Hot foot baths were useful in equalizing the circulation when the extremities were cold. The bowels were kept open when indicated by the use of mild laxatives. The importance of maintaining the strength of the patient was kept in view, and food and stimulants were given in moderate quantities from the beginning. When nausea prevented their administration by the mouth, various mixtures of eggs, cream, and peptonoids were given by enemata. In cases having a sub-normal temperature, the full bath, tepid or warm, the patient being allowed to lie in it for half an hour, gave much relief. The bath was resorted to two or three times daily. Other remedies used lately which gave temporary relief were phenacetine, phenalgin, kryofine, caffeine and codeine; but the old remedy, morphine, was the most useful.

Counter irritants to the neck or spine proved to be useless. Sometimes the application of dry heat to the head and spine was soothing; hot salt bags, hop bags, water bags and hot flannels were used.

Laminectomy and spinal puncture, lately in use for diagnostic and therapeutic purposes, were not resorted to. Late in the course of the disease some benefit appeared to result from the use of small doses of bichloride of mercury, one-tenth of a grain three times daily. Iodide of potash and syrup of the iodide of iron and quinine were employed with apparent benefit to the patient. Complications were treated as the indications arose.

Since 1879, numerous sporadic cases of cerebro-spinal meningitis have come to my notice either as primary ailments or the secondary results. In acute cases I have found Kernig's sign of much value in making the diagnosis.

Cerebro-spinal meningitis, as it has recently prevailed in Louisville and throughout the State of Kentucky, has presented no new features. In some localities it has not been quite so fatal as in others. About 30 per cent. of the cases I have seen have died. In the southern part of Kentucky reports would indicate a death rate of 80 or 85 per cent., with the usual percentage of mental and physical cripple, remaining. The average death rate recorded is from 20 to 80 per cent.

Let us turn to a brief history of cerebro-spinal meningitis, then view it in the clearer light of modern research, and some truths may appear and point the way to a better understanding of this dangerous malady, which may

ultimately enable us to arrest and destroy the assailant before it enters upon its diabolical work.

French writers claim that cerebro-spinal meningitis was recognized early in the Christian era, but Hirsch in his careful investigations has shown that the claim of the French is not well authenticated.

The first accurate report of cerebro-spinal meningitis was given by Vieusseux of Geneva, in 1805, when it prevailed in that city and in various parts of Switzerland. At intervals of a few years it appeared in various parts of Europe, but England and Scotland were the least visited. It spread through Germany, France, Spain, Italy, Denmark, Sweden, Norway, Holland, and Great Britain, especially Ireland, and was known in that country as the "Black Fever." The disease also appeared in Russia, in Turkey, in Greece, and in Asia Minor. Cerebro-spinal meningitis was first observed in the United States in 1806. It appeared at Medfield, Massachusetts, and soon spread westwardly to various States North and South. It appeared at intervals in various cities, towns and villages, and in rural districts, sometimes not in the direct line of human commerce.

No very serious epidemic has been recorded in the United States, such as occurred in Sweden in 1854, when upward of 4,000 deaths resulted from a single epidemic.

The disease is said to be domesticated in Germany, and we may say that this is also true parts of of America. It has not been absent from Boston and Philadelphia for twenty-five years; about six thousand deaths have been ascribed to it in those cities within the last quarter of a century.

Cerebro-spinal meningitis made its appearance in Kentucky about the last days of November, 1898, and soon after was observed in various parts of the State. The first case I saw in Louisville was about the middle of December, 1898. The disease had been reported in Boston, New York, and Philadelphia, and in numerous smaller cities and towns about the latter part of August, 1898. It occurred in Baltimore and Richmond in October. It seemed to spread westwardly to various points, North, West, and South.

The question of direct communication between infected and non-infected localities has not been clearly traced, and the mode of communication from the sick to the well is still a mystery. The weight of evidence shows the disease to be infectious and even contagious, but the number of its victims are not numerous.

The writer has seen five cases in one house occurring in succession, three in another and two in another. He is also aware of the case of a lady who came from a village in an adjoining State and remained with her sister who was sick of meningitis, for ten days, and two or three days after returning to her home she became a victim to the disease. A child contracted it from the mother and a few cases occurred here and there in the village. No case had been known in that locality before. Two nurses who cared for the sick were stricken with the disease.

The foregoing instances, which point to a direct infection, are few when

viewed in the light of several hundred cases where only one occurred in each house. When we remember that there is no disease that affects everybody, and that the condition of the host is an important factor before the microbe enters, the few facts gain much force.

The recent discovery of the microbic origin of the disease must confirm the foregoing ideas of infection. Many forms of bacilli have been found in the meningeal exudates, but by far the most constant has been the *micrococcus lanceolatus encapsulatus*, either alone or with other bacilli. Lately the *diplococcus intercellularis meningitidis* has been found by numerous mycologists, Wischelbaum being the first to isolate it, in 1877. This bacillus is believed by many to be the cause of epidemic meningitis, and all agree that the Freidlander bacillus will cause the disease in a very malignant form. The latter organism was first isolated by Eberth in 1880. He found it in the cerebral exudates of a case of meningitis following pneumonia.

Bozallo and Leyden found the pneumo bacillus in 1883.

Next to find the same form of bacillus was Wischelbaum, in 1886, then Netter in 1886, Goldsmith in 1887, Ortman, Foa and Bordoni. Ufferduzzi found it in 1888, Baute in 1889, Mills in 1889, Monti in 1889, Bonome in 1890, Mirto in 1891, Klippel in 1891, Ribbert in 1892, Flexner and Barker in 1893, Boulay and Courtois-Suffit in 1890, and Zorkendorfer found the bacillus of Freidlander and diplococci in meningitis following suppuration of the ethmoidal cavity.

(Flexner and Barker's statistics quoted by Latimer.)

Prudden found the Freidlander bacillus in a case of traumatic meningitis. Netter found the pneumo bacillus in sixteen out of thirty cases of meningitis in which pneumonia had not occurred. Netter found the *micrococcus lanceolatus eucapsalatus* in the mouths of eighty per cent. of healthy people.

Pneumonia and meningitis are so frequently associated that Faggs, of Erlangen, has reported fourteen such cases that came to his knowledge between 1866 and 1872.

E. Masny experimented on animals with the mixed bacilli and found that the *staphylococcus pyogenes aureus* increased the virulence of the pneumococcus. Rabbits inoculated with the mixed bacilli died within one day, while those in which the Freidlander bacillus alone were used lived for two weeks.

In the report of the Board of Health of the State of Massachusetts, published in 1898, Drs. Councilman, Mallory, and Wright seem to have found in the exudates of cerebro-spinal meningitis the *diplococcus intercellularis* most frequently. In cases where lumbar punctures were practised within the first ten days of the attack, it was nearly always present in the fluid drawn off, but later it was not found so frequently. The bacillus will live in dried mucus or blood for four months. It probably enters the brain through the ear, the nose, or the stomach.

DISCUSSION.

Dr. J. W. Guest—It has been my good fortune to see five cases of cerebro-spinal meningitis in the last few months. I say good fortune advisedly, like my old professor, J. Lewis Smith, in speaking of diphtheria before the introduction of the O'Dwyer tube or antitoxin; he said when he had a child with diphtheria that recovered, he was inclined to doubt the diagnosis. As all of my five cases recovered perfectly, I feel that I have cause to doubt the diagnosis; however, I have dotted down the prominent symptoms which occurred in all five cases, and upon these symptoms the diagnosis was based.

Severe headache occurred in all cases; there was myalgia, but none of them complained of pain except on touching or moving them, especially in drawing the head forward; hyperesthesia was most marked; percussion or touching the body, even the legs or elsewhere, would cause them to cry out with pain, they were so sensitive; there was contraction of the muscles in all cases, the head was drawn well back and the spine was very rigid, almost the true oposthotonos condition; the thighs were flexed upon the abdomen, the legs upon the thighs; delirium in all cases appeared early; four were of the typhoid variety and one maniacal, the latter was a woman; the oldest was thirty-five; constipation was present in all cases, as was also retraction of the abdomen; the face had an anxious expression; examination of the urine in four cases proved it to be normal.

From these symptoms I made the diagnosis of cerebro-spinal meningitis. I treated four of the patients and sent the other to the city hospital. The four I treated by the application of ice to the back of the head continually until the temperature became normal, when it was removed. In one case, the temperature was $102\frac{1}{2}^{\circ}$ F.; in the others, it ranged from $99\frac{1}{2}$ to 100° F. There were no spots or eruptions on the thighs; no herpes facialis. The latter symptoms the text-books tell us occur in forty to fifty per cent. of the cases. There was no strabismus; no photophobia; no tinnitus aurium; no tremors of the muscles except when touched; when the patients were quiet, there were no muscular tremors; there was no history of vertigo, no erotic tendencies. The text-books state the latter symptoms occur in the vast majority of cases. In one case there was vomiting; two out of the five cases had chills; one case, a boy nine years of age, was the only one that had convulsions.

Under this treatment with ice-caps, and I gave $\frac{1}{2}$ ounce of Rochelle salts every two hours, keeping it up for two or three days, all cases recovered. I gave two of the patients opium; the other two did not require it. The earliest case recovered in five days, the longest case in ten days. In the woman, I had cause to suspect the trouble might be hysteria, as I have seen several cases of hysteria lasting from four to six days; but in the others, who were younger, there was no reason to suspect hysteria, especially in the boy nine years old.

I make this brief report of the five cases, thinking it may be of some interest.

Dr. Wm. Cheatham—In referring to the eye complications, I noticed that Doctor Irwin did not seem to think they were of much consequence in making the diagnosis. The doctor's cases must have all been typical. There are many atypical cases of meningitis in which it becomes very difficult to make the diagnosis.

I have seen but one or two cases of cerebro-spinal meningitis of the epidemic form. The eye and ear symptoms of cerebro-spinal meningitis may be summed up in the following: The tissues of the orbit outside of the globe become involved by extension of the inflammation through the superior orbital fissure, through the veins or along the optic nerve. We then have chemosis, exophthalmus and great œdema of the lids. A characteristic of the latter, is that the swelling ends abruptly at the bony rim of the orbit. We have often a catarrhal conjunctivitis at the beginning of the disease. Anæsthesia of the cornea which is sometimes present, may give rise to a neuro-paralytic-keratitis. The cornea may become infiltrated; imperfect closure of the lids may lead to a dessicative keratitis; the iris and choroid are frequently involved, especially the latter. The form of inflammation is sero-plastic. An exudation just posterior to the lens gives the appearance of a glioma, and is known as a pseudo-glioma. The eye is soft from the start, and usually ends in blindness, the globe shrinking. The disease is metastatic; the retina and ciliary body are of course involved. The disease is usually embolic in origin, the plugs being masses of micro-organisms. Cataract is an occasional complication.

I forgot to say that choroiditis occasionally is simultaneous with the meningeal involvement, and when this occurs that the connection could not be metastatic. Optic neuritis is a common complication, especially if the disease lasts over four or five days, and is important in the diagnosis of cerebro-spinal meningitis. The diagnosis we all know is not easy. Optic neuritis is bilateral usually; it is found in about one-fourth of the cases; it in a majority of cases, ends in atrophy of the nerve and blindness. The exudation being very profuse in the chiasma we are liable to have trouble with the abducens, motor oculi, trochlea and facial nerves. The abducens is the most frequently involved; rarely the motor oculi; nystagmus is sometimes present. Trigeminal anesthesia, hyperesthesia and paræsthesia are present quite frequently; disturbances of vision, spasms and paralysis are usually peripheral. Pupils contract, then dilate, and may be unequal. We all know deafness is rather a common complication of cerebro-spinal meningitis; it is not the result usually of pressure upon the trunk of the nerve, but more from involvement of the middle and internal ears; this occurring often in young children they become dumb also.

Two weeks ago I saw two cases the same day from different parts of the State. One was a boy twelve years old who was perfectly blind; the other a little girl five years of age who was perfectly deaf—both the result of cerebro-spinal meningitis.

Dr. W. F. Boggess—Doctor Irwin has covered the ground so thoroughly

that we can only add our clinical experience. I have been unfortunate enough to have seen twelve or fifteen cases of cerebro-spinal meningitis this year. In my hospital service I went on duty when the disease was most common in the city, and we had six or eight cases there. I had the pleasure of seeing a post mortem performed in three cases. One was stricken at nine o'clock one night, and the next night at the same hour the patient was dead. Another was stricken at seven o'clock in the morning, and at eleven o'clock that night was dead. The third was feeling a little sick on Friday morning, became unconscious suddenly the same afternoon at 3:30, I saw him at four o'clock, and at seven o'clock that night he was dead. In all three cases we held a post mortem which gave evidence of a very malignant form of cerebro-spinal meningitis. Cultures from one case were made and the meningeal coccus was demonstrated.

I saw a case of pneumonia in a stout, healthy man of twenty-four years, weighing one hundred and ninety pounds; the disease ran an atypical course; the whole right lung was involved, and about the tenth day he developed a meningitis, and in six or eight hours died. I am sure that was a pneumonia due to the meningeal coccus or a meningitis due to the pneumococcus.

I saw in consultation with Doctor Corrigan two or three days later, another case of pneumonia, which developed meningeal symptoms in three or four days, and died the eighth day of undoubted cerebro-spinal meningitis.

We had two cases at the city hospital in the female medical ward, of undoubted cerebro-spinal meningitis; one recovered and went home with only slight paralysis following. The other, a girl seventeen years of age, had as typical a case as I ever saw, and has recovered except that she is maniacal; she has fixed delusions and I believe her mind is completely gone.

I saw another case in a child five years, which recovered, but was utterly deaf afterward. A patient of mine from the country told me that in her neighborhood when the disease was epidemic there had been four recoveries in children, that one was an imbecile, one paralytic, one was deaf and blind, another blind, and her child was deaf. In these five cases the physical disabilities stated remained.

I have a little child in private practice that has been sick eight weeks, and the disease has run a typical course. In this case we practised lumbar puncture, drawing off some of the cerebro-spinal fluid, a culture was made and the meningo-coccus proven. This child is nearly well, it is sitting up now and is perfectly bright. There is no evidence of any of the senses being impaired. I have seen one other case recover in which a little child was both blind and deaf.

This is my clinical experience with the disease this year, and I must state that while the disease is one that is very difficult to diagnose, and we might oftentimes overlook some of the most important symptoms if it were not for the fact that our attention was called just at that time to the disease,

but if we are looking for the disease it may be recognized. Where there is headache with fever, especially basilar headache, or sudden headache, that came on and did not respond to ordinary methods of treatment, we should suspect meningitis. I can easily understand, however, if our minds were not directed to this disease by an epidemic, how we might overlook it.

It is a question in my mind whether the disease is contagious or not. I believe the meningo-coccus is more contagious than the typhoid bacillus or the pneumococcus, if it had the same chance for dissemination that the others have. The meningo-coccus is confined within the spinal tube, as it were, and there is not the outlet for the contagion that we have in other diseases. I believe if this germ had the free access that other contagious germs have, that it would be as contagious as some of our more contagious exanthemata.

I think certainly the best essay that we have ever had is Councilman's report to the Board of Health of Boston. He reports 111 cases in which he practised lumbar puncture and found the meningo-coccus 105 times. In the 111 cases he also had several severe cases of pneumonia.

This disease is one in which the symptoms do not run a typical course; the fever and pulse are absolutely worthless in making a diagnosis or prognosis; you cannot rely much upon the fever or pulse chart.

As to treatment: I agree with Doctor Irwin that morphine is the sheet anchor in these cases. I do not believe bromides have any effect. Later on in the disease, I give iodide of potassium and bichloride of mercury, and I think after all that, morphine lessens the nervous excitement, it lessens the pain, it prevents tissue metamorphosis and stimulates the heart, and I always combine with it atropia. In all these cases, there is a tendency to respiratory depression, and the only true respiratory stimulant we have is atropia.

Dr. T. P. Satterwhite—I do not know that I have ever seen a case of cerebro-spinal meningitis, unless the one I shall briefly report belongs to that class. Eight weeks ago, I saw a young woman aged twenty-eight years, who was taken with some catarrhal symptoms; she had some sore throat, and intense pain in the occipital region, extending down into the cervical. There was no rigidity of the muscles, but she had intense hyperesthesia of the entire body. She had a dozen or more spots on her body, which looked like erythema nodosum, and were very sensitive. She had photophobia, from which she is just recovering. She has had severe headache until within the last two weeks. There was some brain disturbance, more particularly when sleeping. After she had become thoroughly aroused, she could not be made to believe that the hallucinations she had during sleep were not realities. She could not locate herself in the house, could not locate the street, or how the house was arranged. She was removed from her regular room. Except for these irregularities mentioned, she had no evidence of mental disturbance.

I was puzzled as to what was the matter, not having seen a case of cerebro-spinal meningitis, but in relating the case to several of my medical

friends they were unanimous in the opinion that it was a case of this disease.

Dr. J. M. Krim—The ground has been so fully covered by the paper that there is nothing left but to give one's personal experiences. I have seen eight cases of typical cerebro-spinal meningitis, and five of the eight died. One of the three that recovered is now suffering from hemiplegia. One of the patients, I believe, died from the effects of morphine. In only four of the cases was there present the characteristic eruption. Bromides, chloral and all the other hypnotics were tried, with but little effect. I used one quarter grain morphine with 1-150th grain atropia in the case of a young man twenty-six years of age, and after three or four injections there seemed to be some improvement. He was given one grain of morphine in four hours. At the suggestion of the consultant $\frac{1}{2}$ grain was given every hour until he had taken three grains of morphine altogether. After the last dose, I think in about half an hour, the patient became quiet and never rallied, though he lived twenty-four hours afterwards.

Dr. Ewing Marshall—I have had a limited experience with the disease under consideration, and am like Doctor Guest, these patients generally die. The cases I have seen have all died.

As to the transmission of the disease from one patient to another: It seems questionable whether the disease would not be more contagious than it is if the meningococcus were not inclosed in the bony canal. I have seen it stated frequently that it is a filth disease, that it is infrequently seen in the better class of houses, that there are few cases among the better class of people. The cases that I have seen have been in negroes, and even though they were in negro quarters, I have seen but one case in a house. If the disease is as contagious as it is supposed to be, I think in a house where there are several people more than one case would develop.

Dr. A. T. McCormack (Visiting)—The paper is a splendid exposition of the subject, especially from the standpoint of its being so practical. As general practitioners we can get more good ideas from a practical paper of this kind than from many such as have been written by Councilman and others.

I have seen five cases of cerebro-spinal meningitis, all of which died in about forty-six hours. In all of them there were the characteristic purpuric spots, and none of the cases showed any signs of amelioration from the treatment at any time. But my attention has recently been called, especially by contributions in some of the French journals, to a method of treatment proposed first by one of Crede's followers, known as Crede's ointment of silver, and their statistics have been very favorable. I have procured some of the ointment, but have had no opportunity to use it thus far. The only practitioner in this country who has used it, so far as I know, is a Chicago gentleman, who reports twenty-three cases with nine recoveries. They were all severe cases. The inunctions used are very large, one ounce at a time, on the chest and in the axillary space, repeated twice a day for six or eight

days. If this treatment proves to be effectual it will be a great blessing. Reports that have come to us from doctors over the State would seem to indicate that almost every disease in which there are any meningeal symptoms, during this epidemic, has been classed as cerebro-spinal meningitis. I am satisfied that many mistakes are made in diagnosis, especially by country practitioners.

Dr. J. W. Irwin—I was gratified to hear that Doctor Guest had met with such good success, having treated five cases of cerebro-spinal meningitis, with five recoveries. This is the first time I have ever heard any one state that all the cases of this disease he had seen recovered. The symptoms he recorded, are as a general rule, present in meningitis, but we cannot rely upon many of those symptoms until later on. Hyperesthesia does not usually occur the first day. Therefore, for diagnostic purposes, this symptom is of little value. There are many symptoms present in a disease which affects the cerebro-spinal centres. The temperature in this disease does not indicate its severity, except to show that there is some inflammatory action going on; but when it runs up to 106 to 109° F., it always precedes death within a few hours. That is one thing we can safely prognosticate. The edudates vary in various cases. Sometimes they are found only in the convolutions and sometimes along the coats of the blood vessels, in the form of plastic deposits. The arachnoid and the pia are sometimes attached to the brain, and an attempt at separation will find the tissue beneath very friable. I have seen the spinal cord so softened that when I tried to take a section of it between my fingers it would break to pieces.

In regard to the intermittent cases: An intermission simply means the recurrence or re-establishment of a new focus of inflammation at some point. Those cases that go along for several months usually recover.

As to the eye symptoms: I do attach value to them, but I cannot always have a skilled ophthalmic surgeon with me to make the investigations, we must resort to their help a little later. If we do not make our diagnosis within thirty-six hours, then opium loses nine-tenths of its good effect, for just as truly as opium will arrest a serous diarrrhoea, so will it arrest a serous discharge into the cavities of the brain, and by its early administration we have sometimes cured our patient before he is half sick. I had a case recently in consultation, where the disease was still confined to the brain, it began to show evidence of extending to the spine. Kernig's sign was present. Opium was freely administered, which arrested the progress of the spinal trouble, and the patient has since gotten along without any serious complication; he has been sick five weeks. I have seen since the beginning of the epidemic in this State nineteen cases. All of the cases I have treated as outlined in the paper, and five of them have died. Two have not recovered fully, one is half blind and paralyzed in one arm, the other is blind in both eyes and is partially deaf. Twelve cases have made good recoveries, except one is not fully strong—a man past the age of forty-five years. After forty years, the disease is usually fatal; after fifty, recovery practically never

takes place. Under one year, and up to two years, I have never seen a case to get well, while under seven or eight occasionally one recovers. The best age for recovery, is between fifteen and thirty. The fulminating cases all die. The autopsies show no evidence of disease except a little hyperemia, probably due to the bacterial poison which seems to paralyze the powers of life. Many of these cases have a reduced temperature. It often goes as low as 95° F. In another class of fulminating cases, there will be a high temperature from the start, and they generally die within three days. The fulminating cases cannot be influenced by any remedy. After death, nothing except a little sero-plastic exudate along the course of the blood-vessels will be found.

Deafness and blindness are complications sometimes, often sequelæ, in fact when the base of the brain is affected they may be expected to occur. Photophobia is very common in all forms of meningeal inflammation—specific as well as non-specific.

One point in regard to the differential diagnosis between tubercular meningitis and cerebro-spinal meningitis. The history of the case at once indicates tubercular meningitis; it also comes on slowly. It is not necessary here to go into the details.

Dr. Krim's experience with meningitis is fairly the average experience, five out of his eight cases having died. It is reported from Henderson, where the epidemic has been most prevalent, that the mortality was fully eighty-five per cent. Half of those living to-day are worse off than if they were dead. I saw eleven cases crippled in every manner. We may encounter any kind of sequelæ when the cord and meninges are involved. Look at the difficulties that will be in the way after an effusion takes place into the cranium, and the importance of making an early diagnosis is apparent, and how important it is to resort to the best method of treatment at once—opium. If we will arrest the serous effusion we will cure our patient before he is really beyond curing. When I say I have had over thirty per cent. of deaths this year, this corresponds to the general statement of others who have treated this disease. The death rate laid down in most text books is thirty to seventy-five per cent., but it ranges all the way from twenty to eighty per cent. Many other lines of treatment have been suggested and practised by others, but with no very good results. Spinal puncture may prove to be useful as an aid to diagnosis. It is also easing in its effect, removing pressure from the cord and from the base of the brain by drawing off a portion of the serum. So I think spinal puncture is destined to be somewhat useful as a therapeutic measure, as well as a means of establishing the diagnosis.

Chloroform as a Hæmostatic.—According to the *Journal de Medecine de Paris* for July 2d, Dr. Spaak, of Brussels, has obtained excellent results from a mixture of two parts of chloroform with one hundred parts of water. This mixture is said to rapidly arrest hæmorrhage after tooth extraction.—*N. Y. Medical Journal*.

The Treatment of Acute Dyspeptic Diarrhœa—With Clinical Reports.

By ROBERT C. KENNER, A. M., M. D., Louisville, Ky.

THIS expression of diarrhœa has its origin in increased intestinal peristalsis, and this has its causation in the irritation produced by undigested, or tainted, or fermenting food in the alimentary canal.

This form of diarrhœa is very common, and may prove very dangerous in many instances. Where the general health is impaired there is no doubt that an attack of acute dyspeptic diarrhœa may often lead the patient into a condition of acute debility that may result in death.

In children, these attacks of acute dyspeptic diarrhœa are attended often with much danger, and to them we can trace the cause of the great mortality occurring at this period of life.

It is the commonest thing for patients with diarrhœa to apply to us for treatment, and inform us that this disease has been in existence for several months—and as a consequence they are materially reduced in flesh, and they are greatly weakened. This results naturally from chronic intestinal fermentation, which maintained the diarrhœal process.

The fermentation which I have spoken of as the element in the causation of a large number of cases of diarrhœa, is caused by improper diet in a large number of cases.

In the treatment of acute dyspeptic diarrhœa there are two indications which deserve consideration. The *first* is the regulation of the patient's diet. The *second* comprises the exhibition of those medicines which are rationally indicated in the case in hand.

In carrying out the *first* indication we must at once give the patient a diet list—comprising foods to be employed and those to be avoided.

The following is the list of foods which I generally give to patients. Milk, hot milk, hasty pudding made of flour and milk, rice, in various forms, peas, bread of fine flour, rolls, biscuit and butter, blackberry preserves, cream toast, eggs well cooked, crackers and cheese, bread and olives, dried beef, dried codfish, claret, beer, brandy, tea, water sparingly, ginger tea, ginger extract, preserved ginger, salted meats in small quantities, cheese and milk instead of fresh meat, fresh fruits and vegetables.

The patient should be directed to live entirely on these articles of diet.

We can generally secure adherence to the diet, on the part of the patient, by letting him know that our success in the management of his case depends upon his strict attention to directions to dietetic as well as medicinal means.

In carrying out the *second* indication for treatment we will find that many practitioners make the mistake of prescribing astringents. What is needed in these cases is to evacuate the intestinal canal and then begin systematically with a remedy which is soothing to the intestinal coat, and which disinfects the alimentary canal. Opium and the vegetable astringents often do the most substantial harm by locking up the secretions. I have therefore ceased to give these remedies.

The first step in all these cases is to give some laxative or cathartic which will thoroughly evacuate the intestinal canal. My preference of drugs of this character, is for sulphate of magnesium. This, I give in doses of one-half to one ounce, as the case in hand may seem to warrant. Castor oil and other remedies may be given, but none have given me the satisfaction I have received from sulphate of magnesium. After sulph. magnes. has produced its characteristic watery stools, I begin with orphol, two tablets (five grains each) every two hours.

This agent is a non-poisonous, neutral, non-caustic compound, which contains eighty per cent. of oxide of bismuth, and twenty per cent. of beta-naphthol. It is a most reliable intestinal disinfectant, and more rapidly relieves these attacks of diarrhœa than any other agent I have yet employed.

I give it in doses of two tablets every two hours, until there is material improvement, then I give in doses of one tablet and gradually lengthen the time between the doses until its further exhibition is unnecessary.

Below, I give some reports of cases treated on the plan here given preference:

Mr. J. S. B., age 37, called at my office and said that he had diarrhœa which had persisted for ten days, and had grown worse, and which had made him feel very sick and weak.

This man had paid no attention to his diet, and had eaten the very foods which he should have avoided. This attack of diarrhœa had its origin in a midnight supper, at which he had eaten copiously of the most indigestible foods.

I at once ordered him to have a full dose of sulph. magnes., and after its characteristic action he began with orphol in doses of ten grains (two five-grain tablets) every two hours. He reported at the office next day that he was greatly improved, and had fewer actions than any day since his attack. On the following day he came again, and told me that he was decidedly better if not well. After this he took one tablet (five grains) of orphol three times daily for two days, and had no further trouble.

Mrs. Q. V. S., age 29. This lady had been suffering with diarrhœa for six weeks, which had continued after getting up from an attack of typhoid fever. She also suffered with gaseous distention of the bowels—all the symptoms pointing directly to intestinal fermentation. After a free evacuation, following a liberal dose of sulphate of magnesium, she began taking orphol in doses of ten grains every three hours. She began to improve from the first day, the gaseous distension being relieved in the first ten hours.

The intestinal motions became less frequent daily, and she was discharged cured in one week.

Of course in this case as in the other, the diet was carefully corrected.

I must add that this lady took an orphol tablet after each meal for a week after the cessation of her diarrhœa.

She has had no return of her trouble now in more than four months.

Sophie S., age 16. This girl had a most troublesome diarrhœa, which

had continued for a week and had produced considerable debility. She was treated substantially as the above cases and made a speedy recovery.

Mrs. L. W. F., age 23, a delicate lady, who often suffered with severe protracted diarrhœas when she committed an indiscretion in diet. She had now eaten heartily of unripe fruit and had a most profuse and debilitating diarrhœa. She was given sulph. magnes., and after that she took orphol in doses of ten grains every two hours. This, together with corrected diet, produced the speediest and happiest results in four days.

Mr. L. L., age 49, applied for treatment for a diarrhœa which had caused him loss of flesh, and great distress in its six weeks' duration.

On a corrected diet, and orphol, after free action with sulph. magnes., he made a speedy recovery which occupied only one week.

QUEEN OF SOUTHLAND.

[Dr. Edwin Gladmon, of Southern Pines, N. C., writes as follows of this renowned resort :]

Thou hast wealth of wondrous glory,
 Southern Pines.
 Thou wilt live in fame and story,
 Southern Pines.
 Thine no dearth of nature's dower ;
 Royal splendors round thee tower ;
 Here is Eldorado's bower,
 Southern Pines.

Favorite child of Nature, thou,
 Southern Pines.
 Lavishly did she endow
 Southern Pines.
 Cloudlands fairest eye hath seen
 Purpled sunsets like a dream.
 Float we not on Lethean stream,
 Southern Pines?

Mistress thou of healing arts,
 Southern Pines.
 Here the great white plague departs,
 Southern Pines.
 Here hath Hope her city founded ;
 Here is dark Despair confounded,
 By Health's breezes all surrounded,
 Southern Pines.

Not alone the body healing,
 Southern Pines.
 Balm thou giveth restless feeling,
 Southern Pines.
 Far from city's noise and din,
 Enter here no strife nor sin,
 In Southland's Queen peace reigns within.
 Southern Pines.

—EDWIN GLADMON, M. D., in *Charlotte Observer*.

Southern Pines, Sept. 5, 1899.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.
Editors and Proprietors.

W. H. WAKEFIELD, M. D.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.

J. HOWELL WAY, M. D., Waynesville, N. C.

J. ALLISON HODGES, M. D., Richmond, Va.

S. WESTRY BATTLE, M. D., Asheville, N. C.

GEO. G. THOMAS, M. D., Wilmington, N. C.

J. P. MONROE, M. D., Davidson, N. C.

R. L. PAYNE, M. D., Norfolk, Va.

H. S. LOTT, M. D., Winston, N. C.

J. W. LONG, M. D., Salisbury, N. C.

H. A. ROYSTER, M. D., Raleigh, N. C.

ALBERT ANDERSON, M. D., Wilson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

THE INCREASE OF HOSPITALS.

One of the marked changes in medical practice that these latter decades have brought about, is the immense increase of hospitals, more especially of private hospitals. As it is now fashionable to be connected with hospitals and dispensaries, the accumulated wealth in the great centers of population threaten to make it very difficult for the young medical man to gain a foothold in our large cities, since these charitable institutions, destroy the pabulum upon which he must subsist in the beginning of his career. On the other hand, professional ambition is no doubt one cause for the increase of private hospitals. The last few years has witnessed the organization of a large number of hospitals, both public and private, in this State, and it is undoubtedly a fair presumption that this number will be augmented every year. The public is not slow to realize the many advantages for special treatment which are to be had in a well equipped modern hospital. It goes without the saying that hospital facilities have rendered possible great advancement, especially in surgery and gynecology—have enabled the acquirement of a high degree of skill in all operative work, and because of these facilities and of this skill, reducing to a minimum the dangers of surgical work. The question is sometimes asked whether the confidence thus inspired has not resulted in an increase of radical operative procedures among cases that might be better left to the less brilliant, but equally sure treatment by milder methods. This criticism applies much more aptly to individual operators rather than to the hospital system; the conscientious surgeon, whether in or out of a hospital, may always be counted on to consider the welfare of his patient, rich or poor, beyond all else.

The free hospital and dispensary system, while advancing the few, does so at the expense of less fortunate members of the profession, and their multiplication in large cities beyond all need of the really poor classes has worked a very material harm to the mass of practitioners, whose pay patients often receive free medical treatment at charitable institutions. Vigorous protests are being urged against this condition of affairs, and it is to be hoped that the medical attendants upon those institutions will join their less favored brethren in the effort to lessen so manifest an injustice. Such a situation is naturally limited to the large cities, but it is not impossible that at the present tendency to increased medical charities the evil may appear in a milder form in the smaller cities.

ARMY SURGEONS.

The widespread criticism, in some instances perhaps unjustifiable, of our medical management of the Hispano-American war, has done much to familiarize the public with the absolute necessity of a well organized and capable medical corps in war-times. However much in times of peace crankism and the gullibility of human nature may do to bolster up the innumerable charlatans and pseudoscientists who perpetually parade themselves before the people, the merciful services of the medical men are most profoundly appreciated in times of war, and it will undoubtedly follow the progress of scientific medicine, that the army medical department will receive a due recognition in estimating the military efficiency of any country.

If one may judge from the press reports, our Boer friends in South Africa are woefully deficient in this arm of the service. We read that at the battle of Elandslaagte on October the twenty-first, the Boers had only one surgeon and a primitive staff to cope with thousands of wounded. The amount of preventable suffering resulting from such a condition may easily be imagined. There has also existed among the surgeons of the British army such dissatisfaction with the recognition and recompense accorded to medical men in the service, that the young men of the profession have been disinclined to enter the army; hence the British government has recently taken in a number of surgeons from civil life. The salary paid this latter class is said to be so small that but for the prevalent war spirit it is doubtful if the required number could be gotten. At the present time, however, the number of applicants has exceeded the vacancies.

DECREASING BIRTH-RATE.

It has perhaps escaped the attention of most people that from authoritative sources the statement is made, that the birth-rate in the United States, the youngest of the great nations of the world, has shown such a steady decline during the last decades as now to be the lowest of any country in the world except France—the childless nation. Billing's statistics show that our birth-rate in 1890 was something over 26 per 1,000, a decrease of 4 per 1,000 since 1880. At the same ratio of decrease it is estimated that at the present

time the rate cannot be much over 23 per 1,000—a very slightly higher rate than that of France, which was 22 in 1894. Were it possible to obtain the birth-rate of the pure American population our rate of increase would likely be even less than that of France, it being admitted that the foreign population of the United States is more prolific than the native. Our contemporary, the *New England Medical Monthly*, comments thus upon this rather discouraging state of affairs: "What must be the result? 'America for Americans' will become but a meaningless phrase. Three generations back, our ancestors raised families of from six to twelve children each, and would have thought it strange had it been otherwise. Now it is the fashion to leave the raising of children (the future citizens and rulers of this country) to our emigrant friends."

It is altogether probable that this lessened increase among native Americans is more marked in New England than any other section of the country. We do not believe that the Southern States would show any such marked decrease in birth-rate—certainly not outside of a few of the larger cities, and as the population of this section is composed of over ninety per cent. native-born citizens, the causes for a decreasing fertility in the nation at large cannot be inherent, but must be largely at least artificial.

These causes are stated by our contemporary previously quoted to be: "Three important factors, which, combined, have tended to cause this unfortunate condition in our sociological system, are—(1) The so-called 'higher education' of woman, and 'woman's rights.' (2) The employment of girls in crowded factories. (3) Abortion. This last-named factor is one in which the physician should hold himself responsible and fearlessly use his influence in preventing. Ten years ago, the estimated number of abortions was one in fourteen pregnancies; now, the best authorities agree that one out of every five pregnancies in this country ends in abortion, occurring mostly, of course, in the higher ranks of life, where money will employ the requisite agency.

"In reference to ovariectomy as a causative factor, one writer states that 'careful investigations conducted in France, show that since 1883, French surgeons have spayed more than 500,000 women,' and no one can doubt that like investigation in America would show a similar gruesome record. Should 500,000 women be suddenly removed from a country by famine or pestilence, who would doubt its efficacy in decreasing the birth-rate?"

The Salisbury Sanitorium was opened on October 25th, and will be under the care and management of Dr. J. E. Stokes, recently of Johns Hopkins Hospital. Dr. Stokes was for seven years Dr. Kelly's assistant at the Hopkins Hospital, and has enjoyed the advantages of foreign study at Vienna and Leipsic. As Dr. Kelly's assistant he was personally acquainted with many physicians of the State, and his removal to North Carolina will be a most creditable addition to the medical fraternity.

Medical News and Items.

The Entire Medical Faculty of the University of Vermont has resigned.

Dr. John Thames, a rising young physician, has moved from Lexington to Greensboro.

The Loomis Sanitarium for consumptives near Liberty, N. Y., suffered the loss of one of its buildings by fire.

A Peculiarity of the x-rays is that some eyes are so affected by them as to be rendered blind to the shadows cast by bones, coins, etc. [E.]

The Proposed Quarantine against consumption in California will probably not be enacted, as only one member of the Board of Health favors it.

Dr. Wm. H. Howell, Professor of Physiology, has been made Dean of the Johns Hopkins Med. School, in place of Professor Osler, who has resigned.

The Plague in India is causing much concern in British Medical circles. This classic disease continues slowly to spread, and holds its own in all places.

Surgeon General John Hey Williams, of Asheville, met a serious accident on October 29th. His horse shied and ran upon an embankment and fell back on the buggy and across the doctor's left leg, breaking it below the knee.

A Philadelphia Judge, in a suit brought by a charity patient against the German Hospital, for alleged damages sustained while an inmate, decided that as a public charity, possessed of no funds except such as have been contributed by the charitably disposed for the furtherance of its philanthropic purposes, the diversion of its assets to compensate for injuries inflicted or occasioned by the wrongful acts of its agents or servants would be against all law and equity.

The Disposal of the Dead.—The question raised by the *Hospital* as to the disposal of the dead, between death and burial, is probably destined to obtain much fuller discussion, and to be settled in a more satisfactory manner, as we become more and more alive to the necessity of perfecting our sanitary arrangements. There can be no doubt whatever that, under certain existing conditions of life, the retention of the dead, within the house, is a source of danger to the community. This is especially recognized in times of epidemic infectious disease. In some towns on the Continent they carry this theory to its obvious conclusion, and the cemeteries are provided with handsome mortuary houses, built mainly of glass, through which it is possible for relatives to see their dead, decently and fittingly robed, awaiting final interment. This system, it cannot be denied, has several drawbacks, but as to its sanitary value, there exists no possible doubt, and this is admitted on all hands. It interferes, however, with a very deep-rooted sentiment, in a sphere which the State has come to regard as *ultra vires*. The system did not obtain trial abroad without the fiercest opposition, which we can all understand and appreciate; yet, when involuntary repugnance had been overcome, the usefulness of the idea, from the public health point of view, was immediately recognized, and there has never been any attempt at resistance, or any outcry for a return to the old order of things.—*Therapist*.

According to the *Journal A. M. A.*, T. B. Pandian, Madras, India, is now in Philadelphia for the purpose of raising sufficient money to provide for the purification of the drinking water used by the class of citizens known as "pariahs," in India, who are not permitted to procure water from the springs or rivers used by others. It is said that much of their drinking water is derived from puddles and stagnant pools.

Marrying Nurses—A discussion which ought by rights to have been relegated to the silly season has been carried on in one or more of the New York newspapers concerning the matrimonial propensities of the nurses employed in the large general hospitals of the metropolis, though it is not pretended that the practices complained of are by any means limited to this *milieu*. The allegations in the main do not impugn the morality of the nursing fraternity, or shall we say sisterhood? but it is asserted that the nurses and doctors "flirt and carry on," and that many nurses regard the hospital as a field for the matrimonial campaign. There is doubtless a certain amount of truth in this, for most of us can call to mind numerous instances of marriage between medical residents and nurses and even between nurses and their patients. Whenever a young man of prepossessing appearance is brought into daily and even hourly contact with a comely young woman, shown to advantage in a neat attire, who is not on principle averse from matrimony, there is always the possibility, *Dieu merci*, of a matrimonial sequel, and although a hospital ward is not an ideal *milieu* for Cupid's ravages, the very community of purpose and emotions paves the way to tenderer feelings. The rules at most institutions err, if anything, on the side of severity in the direction of repressing and reproofing any intimacy between medical officer and nurse, but though they may hinder flirting pure and simple, neither they nor any rules that female ingenuity, as represented by the matron, may devise, can be relied upon to stamp out this very human instinct—nor should we approve them if they did.—*Med. Press and Circular*.

A Definition of a Medical College in Good Standing.—A resolution adopted on July 11th by the Illinois State board of health defined the phrase in the State medical practice law "medical college or institution in good standing" to include only "legally organized, properly conducted medical institutions, having a sufficient and competent corps of instructors, and ample facilities for teaching, dissections, ambulatory and hospital clinics, which conform to the requirements relative to the preliminary education of matriculates, the course and period of study, the number, character and length of lecture terms, the duration of attendance on hospital and clinical instruction, which obtain in the majority of medical colleges in the United States." The board also resolved that it would not consider in good standing, after January 1, 1900, any medical institution which does not require of all students (excepting graduates of reputable colleges of arts and sciences, or of reputable colleges of dentistry, pharmacy, or veterinary medicine, to whom one year's advance standing may be granted) as a condition of graduation, an attendance on four full courses of lectures of at least six months each, in four separate years, no two courses commencing or ending in the same calendar year of time. And it further declared that no medical college issuing a catalogue or an announcement in which are contained misrepresentations respecting its teaching, clinical or hospital facilities, its faculty or its courses of study, or false representations as to the number of students matriculated or in attendance, will be regarded as in good standing.—*Med. Record*.

Death-Rates of Abstainers and Drinkers.—According to the *Medical Record*, of 4,234 deaths collected by the British Medical Association, the ages of death in classes were registered, together with the cause, and the average of death for each class computed with the following result: Total abstainers lived on an average 51.22 years. The habitually temperate class lived on an average 62.13 years. Careless drinkers lived on an average 59.67 years. The free drinkers lived on an average 57.59 years, while habitual drunkards lived on an average 52.03 years.

The University and Bellevue Hospital College, New York City, opened October 1. Every student enrolled during this year will be a four-years' student.—The Medical Department of Grant University, Chattanooga, Tenn., opened October 11, the matriculations numbering about 150.—The opening of the Medical Department of Tulane University of Louisiana has been postponed to November 2, on account of the quarantine against New Orleans.—The Chattanooga Medical College has opened with the largest class in its history. This is extremely gratifying, particularly as the four-years' course goes into effect with this session.

According to the *Indian Medical Record*, a hospital in Melbourne is devoted to the treatment of diseases of women, the managing committee of which almost entirely consists of women. But when the annual appointments of resident physicians are made, it is said they are not given to women physicians but to young men. The candidates are appointed by ballot, and a young man of good appearance and engaging manners can rely on the votes of the women managers. This is not due to a lack of applicants of the other sex, for "within the past three months three medical women of ability have applied for vacancies in the resident appointments, but in each case a male competitor was chosen instead." These facts, as the *Record* remarks, are significant, but it does not further explain them, except to say that they are not encouraging to those of the gentler sex who study medicine in Melbourne. The new woman in whom the normal heterosexual impulse is supposed to be suppressed does not appear to be strongly in evidence in the antipodes.—*Journal A. M. A.*

Mr. Moody on Physicians.—There is a good deal laid up to the devil that belongs to us. When we talk of disease, for instance, being the devil's work—that is downright nonsense. If we are healed, we should give thanks to God that He has provided good medicine and able physicians. The Lord gives good doctors and healing medicines. I do not believe that doctors are devils. Far from it. I think the noblest profession outside of the ministry is that of medicine. Some of the noblest men I have ever known have gone out as medical missionaries, devoting their lives to doing good with the skill and healing medicine the Lord conferred upon them, and these men are called devils. God have mercy on the man who says so. God forgive the man who holds such belief! God heals, and heals through doctors and through medicine. Do not be carried away by the railings of fanaticism. We have a new ism in America about every year. Beware of the isms! What would I do if I felt sick? Get the best doctor in Chicago, trust to him, and trust to the Lord to work through him. The doctors have done wonders as their knowledge has grown. They have reduced the dangers of death in diseases that once slew all they touched. And the doctors, if God helps them, will yet find a way to stop the ravages of other terrors.

Book Reviews.

Dixie Magazine for October is an interesting number. "The Mother of Napoleon" (Illustrated) by H. S. Turner, is the first of a series of historical sketches of the Emperor's family. Fiction is represented by "As Angels May," by Wingrove Bathon, "The Madness of Gabriel Juneau," by E. Carl Lilsey, and "The Door on the Stair," by C. M. Corardean. "Southern Potteries and Southern Clays" is continued from September and concluded.

Elihu S. Riley writes entertainingly of "The First Theatre in America," which he states, on the authority of the *Maryland Gazette* of June 18th, 1752, was in the historic town of Annapolis. A history of "The Loyalists of America" is given (illustrated with photos) by Viscount de Fronsos.

Scribner, for November, opens with a story of the "Great November Storm of 1898." This was one of the most destructive storms ever known on the New England Coast, and it was the occasion of many stirring incidents associated with the irresistible power of wind and sea. President Hadley, of Yale, writes on "The Formation and Control of Trusts," giving a very clear statement of the motives and conditions that lead to their organization. The stories of the number are, "The Man on Horseback," by Wm. Allen White, a strong, vivid picture of life and politics in a growing Western city; "The Real One," an amusing romantic comedy, by Jesse Lynch Williams, and the conclusion of Quiller-Couche's beautiful story, "The Ship of Stars."

Married.—BAIRD-WILFORD. In Asheville, on Wednesday, October 18th. Dr. Harrison Lenoir Baird and Miss Nancy Orman Wilford.

Died.—MRS. ALICE BATTLE, wife of Dr. Samuel Westray Battle, died October 29th, at the family residence, Buncombe Lodge, in Asheville. Mrs. Battle was a daughter of Rear-Admiral George E. Belknop, U. S. N., retired, of Brookline, Mass., and was about 37 years of age.

DR. W. B. COUNCIL (the father of J. B. Council of Salisbury) died at his home in Boone, Watauga county, on November 4th.

DR. W. C. McDUFFIE, one of the most prominent citizens of Fayetteville, died Oct. 31st. He was one of the ablest physicians in the State.

The *Fayetteville Observer* says of him: "Dr. McDuffie was one of the most distinguished physicians in the State. He was President of the State Medical Association in 1885, and since the organization of General Parker's brigade of United Confederate Veterans, has been surgeon on General Parker's staff. He was a man of versatile gifts, which he had cultivated by the reading of the classics. He was an admirable speaker and was often called upon to preside at public meetings. As chairman of a banquet, he was inimitable, his sparkling wit and his clever and apposite quotations from the masters of literature, well becoming his captivating and impressive presence. He was tall, broad-shouldered and full-bodied, and his massive head nobly crowned his fine figure. He was the soul of good humor, and his heart overflowed with kindness and love for his fellow-man."

Review of Medical and Surgical Progress.

The Pulse as it Relates to Prognosis in Typhoid Fever.—Dr. Henry Jackson, in discussing the value of the pulse in diagnosis and prognosis, says: In uncomplicated cases of typhoid fever, the rate of the pulse is slow relatively to the degree of the fever and the general condition of the patient. When the pulse is continuously rapid, the prognosis become proportionately grave with the increase in the rate, though no other alarming symptoms arise to render us doubtful as to the outcome of the case. Leaving out of consideration hemorrhage and perforation, a rapid pulse is an index that the patient is in danger of succumbing to the specific toxemia produced by the disease. The pulse is to us an index of the effect upon the individual patient of the poison of the typhoid, and is of far greater value than any other one symptom or any group of signs or symptoms.

I have seen patients die who had only a rapid pulse as indicative of danger, while again and again, I have seen patients recover where the pulse ran from 110 to 120, yet they were very stupid, had involuntary passage of urine and feces and perhaps frequent vomiting. I am so sure of my ground in this matter that in the individual case I dare to make a favorable prognosis if the pulse is slow, no matter how unfavorable the other symptoms may be. On the other hand, a rapid pulse, independent of any complication, as hemorrhage or pneumonia, causes me great anxiety.

Roentgen-Ray Examinations in Incipient Pulmonary Tuberculosis.—Francis H. Williams (*Medical News*) makes a report of five cases in which the physical signs were slight and in which the X-ray examination was of assistance. These are in addition to three cases previously reported. A second group of four cases consisted of those in which there were no physical signs, that is, whose lungs were normal by auscultation and percussion. The findings of the X-ray were verified by the finding of tubercle bacilli in the sputum or by the reaction with tuberculin. The examinations were made by the fluorescent screen in preference to the X-ray photograph, experiments showing that the former method showed a perceptible darkening in some cases in which there was shadow shown by the latter.

In doubtful cases two X-ray examinations should always be made at an interval of some days, in order that the second examination may verify or disprove the first, as there are various conditions which may temporarily give signs similar to those observed in pulmonary tuberculosis.

In studying tuberculosis by the X-rays we usually find that the apex is darkened and the excursion of the diaphragm is shortened; but we may find now and then only a general diminution in the clearness of the outlines of the lungs and of the ribs. This latter condition is found probably in cases where the disease is disseminated, but it is not easy to recognize this slight departure from the normal unless the physician is in constant practice with the fluoroscope.

Gonorrhea.—Colombini (*Brit. Med. Jour.: International Medical Magazine*, August '99) uses in the acute stage a 0.25 per. cent. solution of Protargol. After making the patient pass water, and washing the glans and prepuce with some antiseptic solution, he first injects a syringeful of protargol in such a way that sufficient room is left for the outflow of the injection; then refilling the syringe (which is made to hold 6 c. cm.) to two-thirds of its capacity, he injects the solution very slowly, blocking the meatus completely,

so that it may not run out again. The syringe is carefully removed, the patient being directed to keep the meatus closed with his fingers for 15 minutes, and not to pass water for an hour. As the inflammation subsides, the strength is gradually increased up to 2 per. cent. The solution is injected at the temperature of the air. The first day one injection is given, the next one in the morning, and another in the evening; the third and following days one in the middle of the day as well. The injections are continued for 20 days after the cessation of the discharge, the daily number being gradually diminished to one. Colombini gives details of 21 cases, and sums up that the results were excellent in every respect. The gonococcus quickly disappeared, the subjective phenomena speedily ceased, the discharge was rapidly diminished and modified, and complete recovery occurred without any complication. According to him, it realizes the ideal of a remedy for gonorrhea, curing the disease rapidly and effectually, without the least irritation or undesirable after-effect on the mucous membrane.

The Etiology of Rickets.—(Editorial, *Archives of Pediatrics*, October, 1899.)—Rickets is unquestionably increasing in frequency in this country. This opinion has recently been expressed by Ratch and other observers. Dr. Morse in a recent study of the subject, concludes that 80 per cent. of the children under two years, of the poorer classes of Boston and adjacent vicinities, have rickets. The actual exciting cause of rickets has not yet been determined, nor has its exact pathology been settled. We know enough, however, about its causes to classify it as a preventable disease. Possibly, the only exception to this statement, is in the case of a Southern race transferred to a cold climate. Rickets is essentially dietetic in its nature, though bad hygiene is a very important element in its etiology. It is a disease of nutrition, complex in nature and not due to a single cause. Animal experimentation and clinical experience both teach that this disease may result from dietetic errors alone.

The diet which will most certainly be followed by rickets is one deficient in fat. If deficient in proteids also, the certainty of rickets is increased.

If to this deficiency is added an excess of carbo-hydrates, we have the diet par excellence for the production of rickets. Such a diet we have in perfection in condensed milk and certain of the proprietary foods.

Of the unhygienic conditions tending to the production of rickets, lack of sunlight is apparently the most potent. The disease is unknown in India and most tropical countries, even though the children commonly receive inadequate nourishment. They live, however, perpetually in the open air.

It is apparent that the surest means of producing rickets in a young child, is to provide a food deficient in fat, and over-rich in carbo-hydrates, and to exclude sunlight and air.

R. L. F.

A Case of Hemiplegia in a child.—Dr. Norbury (*Pediatrics*, 1899, Vol. viii, No. 7) reports a case of hemiplegia occurring in a child three years of age.

The child was born at full term, easy labor, without forceps and traumatism, and was robust and healthy from birth.

The child was taken with a chill, followed by high temperature, which lasted several days. On the morning following the chill, it was noticed that he could not stand, and was not able to talk. Hemiplegia was pronounced, involving the left leg, arm and the face. The power of speech was lost entirely, and not until about three or four months later was any improvement apparent. Then the child commenced to speak, and there was gradual im-

provement of the other symptoms. A rigidity of the affected extremities developed with the progress of the case, also contractions of the flexors, and the reflexes became exaggerated. Athetoid movements are present in a mild degree.

The child has the usual mental capabilities for his age, and his conduct is good. No convulsions have followed, and development of the limbs has not been greatly interfered with. The question of etiology can only be surmised; it evidently was of infectious origin, producing either local meningeal disease, or possibly inflammation of the cortex.

R. L. F.

An Application to Rectal Ulcers.—Dr. Tuttle recommends, after the introduction of a Sigmoid speculum, the application of a solution of protargol to all the ulcerated surfaces. This he repeats twice a week, while each day he applies, through a bougie, a solution of hydrostis. Cure is usually effected in from six to twenty weeks.—*Kan. City Med. Index.*

Primary Testicular Mumps.—Dr. Landon Edwards (*Journal American Medical Association*, 1899, Vol. xxxiii, No. 16,) reports four cases of primary testicular mumps that come under his care during an epidemic of parotitis in the winter of 1898-'99. Three of the cases were in young medical students, of fairly good health; the fourth case was a young man who boarded in the house with one of the students. Other cases of ordinary epidemic parotites were in the boarding-house with these students, but these attacks ran the usual course without notable incident worthy of record. The most exacting inquiry could not elicit the history of impure intercourse, or of recent venereal disease, in either of the four cases referred to; nor was there history of inquiry or traumatism about the generative organs.

Beyond the prevailing influence of epidemic mumps, there was no apparent cause for any disease of the contents of the scrotum. These patients had never had a previous attack of parotitis.

During the course of the disease, there was no urethral discharge, no bladder irritation, no evidence of suppuration anywhere, nor did the involvement of the epididymis leave any sign of permanent change in structure.

While the neck glands became secondarily involved in three of the cases, in only one case were the signs of parotitis at all prominent. In none of the cases were the testicular signs or symptoms modified when the salivary glands became secondarily affected.

As to treatment, guaiacol was used in two of the cases reported, without benefit.

Phenacetin with salol and digitalis relieved much of the discomfort. Tobacco poultices over the testicles, and afterward absorbent cotton wet with 15 to 20 per cent. solution of ammonium chlorid, applied on the scrotum. Rest in bed and suspensary bandages for the testes. By the eighth or ninth day all signs and symptoms of the disease had disappeared, and no impairment of function seems to have resulted in any of the cases.

R. L. F.

Fever and its Treatment.—(*Hare, Int. Med. Mag.*) As a rule in medicine as well as in everything else, the wise physician will not follow the claims of those who, on the one hand, assure us that all fever is evil; or, on the other hand, that fever is harmless; but he will follow the middle path, in which he will recognize that sometimes it is harmless and sometimes it is capable of doing great damage. The occasions on which it is harmless will be those in which the temperature does not exceed $102\frac{1}{2}^{\circ}$ or 103° at the

most; and those in which it will be harmful will be those in which it will run from 103° to 105° . It is also to be remembered that the duration of the fever and the character of its cause seriously modifies the question as to whether its existence is dangerous to the patient, for we can readily understand that a patient with a temperature of 102° or 103° , continued for three or four weeks, as it is in typhoid, might in the end receive injury; whereas a patient with a temperature of 104° or 105° , during some acute ailment which only lasts a few hours or a few days, could stand this hyperpyrexia without damage. The following propositions will express my views:

First, that fever when excessive or prolonged is harmful.

Second, that moderate fever, not too prolonged, may be of distinct advantage to the patient.

Third, that moderate fever, not too prolonged, even if it is not advantageous, may be, on the other hand, not deleterious, but may be regarded by the physician without any anxiety as a characteristic concomitant symptom which we would naturally expect to find in a patient suffering from the disease which is present in the patient's system. Applications of cold water is by long odds the best means we have for reducing temperature which we believe to be harmful to our patients, whether these temperatures be hyperpyrexia of acute illnesses, or whether they be manifestations of more prolonged maladies; but I desire to emphasize a point which I believe is too frequently ignored in the use of cold water in the treatment of fevers, namely, the necessity of always resorting to active rubbing or friction of the body and extremities of the patient, while cold water is being employed, for the double purpose of maintaining the circulation by equalizing it and of bringing the hot blood to the surface so that it may be cooled, for, as we all know, the application of cold to the surface of the body causes contraction of the peripheral capillaries and the congestion of the internal viscera, where it is impossible for the cold applications to the surface to materially reduce the temperature. These cold applications do good not only by abstracting heat from the body, but they also do good by improving the nervous tone of the patient, and, what is very much more important, they improve the tone of his vascular system, the friction preventing any tendency to congestion or stasis in important organs, such as the liver, lungs and kidneys. In the ordinary infectious diseases with high fever, the vascular system too often becomes disorganized and lacking in elasticity, just as a hollow rubber ball will become brittle and inelastic if kept motionless for a long period of time; whereas, if the rubber is exercised each day, by squeezing it in the hand, it will maintain its elasticity indefinitely. By means of the cold bath, or sponging, the blood vessels have their elasticity maintained and the circulatory apparatus is therefore kept in good condition.

Quinoliv.—*The Georgia Medical and Surgical Journal* has the following abstract of a paper by Willard H. Morse, M. D., consulting chemist and therapist, London, England.

I do not recognize that there is any need of discussing the question as to the palatability of quinoliv. That is a fact which admits of no dispute. Quinoliv is true to its name—a “*tasteless* sulphate of quinine.” In full definition we style it a “*tasteless* sulphate of quinine with olive oil.” But—with doleful experience with certain emulsions to fortify the doubt—there comes up the question as to whether this preparation may not lose some of the therapeutic qualities of its sulphate of quinine. This, indeed, might well be alleged with plausibility of reasoning; but intimate consideration

procures a ready and distinctive denial. The conception of some physiological actions by therapeutists are fearful and far-fetched; and this is one instance. For myself, I cannot conceive of even a remote possibility of the kind occurring; and it is a satisfaction to know that both laboratory work and clinical experience carry proofs. I fail to find any difference between the therapeutical application and physiological action of the plain sulphate and quinoliv in the stomach.

I do not much care in what form, manner or character quinine reaches the stomach, as it is sure to diffuse into the blood with the greatest facility. As contained in the bark, the alkaloid is readily dissolved out by the gastric juices. "A five-grain dose is a five-grain dose, cloak it, thrall it, or black-ball it." As far as gastric action goes, olive oil is simply a menstruum, and a good one. It neither synergizes or antagonizes the action of the quinine in the stomach.

And here these words will be critically repeated: "In the stomach?" I make the distinction of purpose. But, it will be urged, it is only the gastric action that is reckoned. Bartholow has well said: "If any portion of cinchona bark or its alkaloids fail to be absorbed in the stomach, and pass into the intestines, it will, most probably, be excreted and escape with the fæces; for the alkalinity of the intestinal juices will hinder absorption or prevent it entirely." This is good reasoning, and embraces the view that is generally indulged. No observer gainsays this—quinine is intestinally wasted.

Now, notice, as a valuable fact, quinoliv, fully the equal of the plain sulphate in the stomach, is *not* intestinally wasted.

In the metamorphosis of animal fluids, olive oil plays a prominent part when properly ingested. Oil is a very important material in intestinal digestion, and olive oil is very like the molecular basis of the chyle—finely comminuted fat. Taken in as quinoliv, it undergoes the emulsionizing process in the small intestine, and by aid of the biliary and pancreatic secretions, it then enters the veins and lacteals, carrying the quinine with it, and, in fact, being absorbed the more readily because of the presence of the quinine. Now, what is the advantage? It is notable and three-fold.

It is economical—no intestinal waste.

It is sustenat—of true food value.

It is antiseptic—neutralizing and destroying the ever-present bacilli of the small intestine.

Quinoliv then, being absorbed and well utilized in the small intestine, the quinine purchases the very largest advantage, and in addition to its other availability as indicated, has a more direct influence on certain disorders. For instance, diarrhœa, dysentery, and jaundice, where the disorders are due to structural alterations of the liver and the glandular apparatus of the intestine. Again, in treating the malarial fevers, not infrequently an irritable condition of the stomach precludes gastric action; in such instances quinoliv is remarkably efficient. For cholera infantum I should prescribe it confidently, as it is effective when every possible combination of astringent and laxative fail. For intestinal catarrh, where mucus is voided and vomiting of a yeasty material occurs, the morbid state of the mucous membrane on which the disorder depends is rapidly healed, and the micro-organisms are destroyed. For skin diseases, quinoliv is preferable to the plain sulphate every time; and for obvious reasons.—*Willard H. Morse, M. D., Consulting Chemist and Therapeutist, Fellow of the Society of Science (Lond.), American Director of the Iamatological Bureau, etc.*

Therapeutic Hints.

The following recipes for relief of headache we clip from the *Journal of A. M. A.* :

Headaches.—Dr. Joseph Collins suggests the following prescriptions for various forms of headache :

R Pulv. opii gr. ss | 03
 Zinci phosphidi gr. ss | 03
 M. Ft. pil No. xx. Sig. One pill three times a day for headaches following the infectious and exogenous intoxicants.

Early in the treatment the following tonic should be administered :

R Ferri et ammonii citrat. gr. xl 2 | 60
 Liq. potass arsenit. m. xl 2 | 50
 Syrup zingiber. ʒ ss 15 | 55
 Infusi calumbæ, ad. ʒ iv 124 | 40
 M. Sig. Two teaspoonfuls after meals.

UREMIC HEADACHE.

R Potassii citratis ʒ ii 1 | 80
 Tinct. hyoscyami. ʒ ii 7 | 80
 Spts. eth. nit. ʒ ii 7 | 80
 Infusi scopariæ. ʒ vi 23 | 40
 M. Sig. Tablespoonful in water three times a day.

HEADACHE ASSOCIATED WITH FLATULENCY AND PYROSIS.

R Sodii bicarb.
 Bismuthi subgall.
 Pulv. acacia aa. ʒ i 3 | 90
 Liq. ammon. anisi. ʒ ii 7 | 80
 Aquæ destil., ad. ʒ viii 248 | 80
 M. Sig. Two tablespoonfuls before meals, repeated in three hours if necessary.

HEADACHE FROM SLUGGISH CIRCULATION.

R Ext. cannabis ind. gr. ʒ | 02
 Ext. gentian. q. s.
 M. Ft. pil.

HEADACHES FROM GENERAL ANEMIA.

To overcome the sluggish condition of the digestive tract, with headaches dependent upon a general anemia :

R Quinin sulph.
 Ext. aloes aq., aa. gr. xii | 78
 Pulv. capsici.
 Pulv. ipecac, aa. gr. vi | 39
 Glycerin, q. s.
 M. Ft. pil No. 12. Sig. One pill at midday.

If associated with considerable vital depression, he uses the following pill instead, giving at the same time some absorbable form of iron :

R Ext. nucis vom gr. ss | 03
 Pil. rhei comp gr. iii | 20
 Pulv. capsici. gr. ¼ | 016
 M. Ft. pil. Sig. One pill at midday.

NEURASTHENIC HEADACHE.

Hamilton prescribes the following in neurasthenic headache :

R Ammon. carb ʒ iii 11 | 70
 Tinct. moschi ʒ vi 23 | 40
 Spts. lavandulæ ʒ i 31 | 10
 Elixir ammon. valerianat ʒ viii 248 | 80
 M. Sig. Two teaspoonfuls at a dose in water.

The following is recommended by Lucking :

R Ext. cannabis ind gr. 1-6 | 010
 Zinci phosphidi gr. 1-10 | 006
 Acidi arseniosi gr. 1-30 | 002

For one pill. Give twice daily for some time.

Leonard Weber claims that the following combination will relieve headaches promptly, and better than any single coated remedy :

R	Acetanilid	gr. i	065
	Phenacetin	gr. v	32
	Antipyrin	gr. v	32

M. Sig. For one powder.

HEADACHE DEPENDENT UPON OVARIAN DISEASE.

R	Ammonii bromid	3 vi	22	40
	Ext. hydrastis fl.	3 ss	15	50
	Tinct. gentian comp	3 iiss	46	60
	Aquæ	3 iv	124	40

M. Sig. A dessertspoonful three times a day.

—Siukler.

Quinsy.—

R	Tinct. aconita rad.	m. xvi	1	
	Tinct. ferri chlor.	3 i	3	90
	Sodii chloratis	3 i	3	90
	Glycerin	3 vi	23	40
	Aquæ, q. s. ad	3 ii	62	20

M. Sig. A teaspoonful every hour to be swallowed slowly and left as long as possible in contact with the fauces.

—A. H. Smith.

R	Potassi bromid	gr. lxxx	5	20
	Sodii salicyl	3 i	3	90
	Tinct. opii deod	3 i	3	90
	Cascara cordial, q. s. od.	3 i	3i	10

M. Sig. Teaspoonful every four hours in water.

—E. Fletcher Ingals.

R	Tinct. guaiaci ammon.			
	Tinct. cinchonæ comp. aa.	3 ss	15	50
	Mellis despumat	3 iiss	46	60
	Bene simul agita, et adde:			
	Potassi chlorat	3 iiss	9	75
	Aquæ, q. s. ad	3 viii	248	80

Fiat gargarysma. Sig. Use as a gargle every half hour and swallow a teaspoonful every four hours.

—Samuel O. L. Potter.

R	Ol. eucalypti	m. qv		72
	Spts. camphor	3 iiss	5	85
	Tinct. guaiaci	3 iiss	13	65
	Glycerin, q. s. ad	3 i	3i	10

M. Sig. Ten drops on sugar, to dissolve in the mouth, every hour or two.

—Miles.

Urticaria of the Mucous Membranes.—Dr. Packard (*Archives of Pediatrics*, 1899. Vol. xvi No. 10) says there is no very evident reason why urticaria should not affect the mucous membranes as well as the skin, its relative infrequency being probably best explained by the irritation of the latter by the clothing and the unwarmed air.

He reports three cases of urticaria associated with marked asthmatic symptoms. He finds in a number of cases, from the literature of the condition, a very close relation between the skin lesions and the respiratory symptoms. He thinks it by no means impossible that some of the gastrointestinal symptoms present with urticaria, indicate, not the persistence of the cause of the urticaria, but the actual existence of urticaria in the stomach. In the literature many cases pointing to that view are to be found. Involvement of the genito-urinary tract is apparently more rare than that of other mucous membranes. He reports a case, however, which he believes to have been this condition in a man who had marked hematuria, which ceased quite promptly as he became covered with a profuse crop of typical urticaria. He had previously had frequent attacks of hives, but had never had hematuria before this occasion.

R. L. F.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, NOVEMBER 20, 1899.

No. 10

Original Communications.

Hæmorrhoids and Their Treatment.*

By JOHN R. IRWIN, M. D., Charlotte, N. C.

THIS is perhaps the most frequent disease to which man is subject, and one of the most ancient in medical history, dating back in Hebraic times before Moses lived and before the building of the city of Babylon. No doubt it prevailed from the fall of Adam, because he and his descendants were subject to the common laws of nature, and the same causes produced the same effects then as now. No age or clime is exempt from this disease, and every race subject to it—those living in towns and cities and the inhabitants of the country as well.

Usually regarded as one of the slight ailments, yet often complicated, and the treatment directed to the mere effects of the malady—the hemorrhage, the congested and inflamed mucous and cellular membranes, the organized tumors, etc., to the entire neglect of the real cause of the trouble. Hence, in its treatment, there has been perhaps more empiricism and quackery than in any other in the whole domain of medicine, and here charlatanry has found its most fruitful field. Many a man and woman has been humbugged by salves, suppositories and pile cures, and made themselves the willing dupes of ignorant and confident pretenders.

Multitudinous are the remedies that have been vaunted as cures of this trouble, perhaps more than the cities claiming Homer's birthplace. Even superstitious notions, such as charms, incantations, invocations, amulets, etc., have been invoked to cure or prevent the disease, though no one has ever attempted to explain their *modus operandi*, and, of course, cures never result from any of these except in the operations of the imagination.

Even in this day of progress and enlightenment, I know, and each one of you, no doubt, knows of individuals who carry a buckeye in their pockets as an amulet for the relief and cure of hæmorrhoids. How unlimited and inexhaustible is the stock of credulity in this world! To all such an emi-

*Read before the Charlotte Medical Society, Nov. 7, '99.

nent author very appropriately recommends "that he or she wear the precious stone chrysolite in a ring on the middle finger of the left hand ; as this stone is described as being the friend or patron of wisdom, and the enemy, etc., of folly."

Anatomy.—In studying this disease, and examining with a view to making a diagnosis, manipulating the parts and performing operations, it is important to know the anatomy of the rectum. Much has been learned with regard to the etiology, pathology, etc. of piles, by dissection and injection of the arteries and veins in communication with them.

Rectum is a misnomer in the human species. In the lower animals this organ usually presents the straight form, and from this fact the term probably originated. This division of the alimentary canal begins at the sigmoid flexure and extends to the anus, and measures six to eight inches, the length being somewhat in proportion to the height of the individual. The lower one-third, the portion most concerned in the development of piles, is fixed, and the other part movable. From the apex of the coccyx it turns upon itself, backward and downward, for about one and a half inches, completing its course at the anus. This should be remembered in introducing the finger, an instrument, or the nozzle of a syringe, to push it forward towards the bladder for about an inch and a half, then backward towards the sacrum, for I have seen physicians even, trying to introduce these by pointing directly backwards. This point was first suggested to me several years ago, by Dr. Tuttle of New York. The lower part of the rectum is only covered with peritoneum on the anterior surface, and is reflected on to the bladder, forming the recto-vesical pouch, the lower portion of this fold being from two to two and a half inches from the anus in the male and three to three and a half inches in the female. The hæmorrhoidal area extends from the anus about three inches up the bowel, and consists of a venous plexus encircling the intestine and lying in the submucous connective tissue. The veins returning the blood from the rectum and anus are devoid of valves; and the superior hæmorrhoidal which returns the blood from the lower part of the rectum, and its branches, pass up under the mucous membrane three or four inches, then perforate the muscular coat and can be seen on the outside of the bowel. Verneuil says this anatomical arrangement is an important and active cause of internal hæmorrhoids. The nerves of the rectum are supplied from the sacral plexus of the cerebro-spinal system, and the mesenteric and hypogastric plexuses of the sympathetic system, hence the many reflex symptoms frequently attending this trouble. Of the two sphincters, the external is one of the most important muscles of the whole body. The internal one is not of much importance surgically. It is situated immediately above the external one, and subserves a good purpose as an anatomical guide in locating the openings of internal fistulæ.

Classification.—1. External. 2. Internal. For centuries this has been the division, and continues to be the simplest and best, because based on pathological facts. External, when the tumor is external to the external

sphincter and involves the skin, while the internal commence in and are covered by the mucous membrane. The latter may, in chronic and long-standing cases, protrude outside the anus, but there is a well-marked difference, the external having a purple tint and irregular surface, while the internal has a smooth, shining surface, and red or claret color. External piles are not usually painful unless inflamed or happen to be of the thrombotic variety. Internal hæmorrhoids are painful, especially if situated within the grasp of the sphincter, and indeed the suffering may become intense, with a desire to strain down. Then they swell and keep the sphincter in a state of spasmodic contraction, which intensifies the pain, and may cause strangulation and ulceration. Internal hæmorrhoids are more serious than the others, from frequent hemorrhage, which causes them to be denominated "bleeding piles," and they cause perhaps, as much mental and reflex disturbance as any disease with which we have to contend. The bleeding is in most cases venous in character. When it has the appearance of being arterial, by spurting, Cripps offers the theory that the powerful abdominal muscles force the blood through a rupture in the vein, as a regurgitant stream. If the individual is strong and healthy, the bleeding does not affect the general condition, yet the annoyance is very great. If weak and anæmic, the arrest of these hemorrhages is usually followed by improvement in health. Bleeding was for a long time considered salutary even by physicians, and many among the laity of the present day entertain this opinion, which is erroneous, for hæmorrhoids are often the result of the very diseases which they were supposed to prevent, and instead of being emunctories through which the morbid humors are evacuated, rather tend to intensify and complicate existing disease.

Etiology.—The causes are predisposing and exciting. The anatomico-pathological arrangement of the veins of the rectum, already mentioned in speaking of the anatomy of this part of the alimentary canal, is an element of great importance, because the other predisposing causes, such as age, sex, sedentary life, and alcoholic and other excesses, are all more or less connected with it. As quadrupeds have no such disease, the erect posture may be a factor, and the absence of valves in the superior hæmorrhoidal veins and the vessels into which they pour their contents, increases the natural tendency to stasis. Erichsen says "The whole pressure of the column of blood in the portal system is thus brought to bear upon the hæmorrhoidal plexus." Not only this, but the veins receive very little support from surrounding structures, and Verneuil claims that the branches of the hemorrhoidal veins pass through little slits in the muscular walls of the rectum, which also intensifies this anatomical cause. It is now a well-known fact that railway employees are very prone to this disease and that the conditions of their occupation, irregularities in living, combined with the irregular jarring motion of the train, play an important part as an etiological factor in the production of this disease. Piles are said to be more common in men than women early in life, because the pressure of the blood is relieved by the menstrual flow. But pregnancy renders women very prone to the trouble,

and the congestions which attend and follow the climacteric, by retarding the portal circulation tend to produce hæmorrhoids. Sedentary life, by bringing about disorders of gastric and intestinal digestion and abnormalities of the liver and portal circulation, are common and powerful factors in bringing about the hæmorrhoidal disease. So also alcoholic and other excesses. Heart disease, especially mitral regurgitation or obstruction, and obstruction to the pulmonary circulation as seen in general emphysema will give rise to hæmorrhoids, by means of the chronic passive congestion of the liver produced. Spasm of the sphincter excited by blood stasis, increased congestion from fissure, varicosity, or acute hyperæmia of the mucous membrane, will bring about or aggravate the hæmorrhoidal condition. Heredity exercises an important and an undoubted influence in the production of this disease. There are so many and varied causes and constitutional peculiarities, inherited and acquired, predisposing to the trouble, that it is out of the question to mention them all in the limits of this paper. Among the exciting causes constipation is the most frequent and important.

I shall pass the symptoms and differential diagnosis, as you all are, no doubt, familiar with these, but let me insist that you always make a careful visual and digital examination in every case before prescribing, because very absurd mistakes are frequently made as regards a correct diagnosis.

Sims's position is best for an examination, and don't fail to use a speculum, and an anæsthetic, if necessary.

Treatment.—This is palliative and surgical. The first or medical treatment is intended to make the patient comfortable and if possible also to cure the disease. As the physician is not often consulted in the primary stage of the disease, this treatment is mostly employed to relieve the sufferings of the patient and to carry him through an acute attack or an exacerbation of the disease, but to be efficient, it must be constitutional and local, addressed to the primary cause and to allaying the inflammation, pain and turgescence of the vessels, etc. The irritation of the piles themselves can be diminished by the use of aperients, which fecal matter the motions and tend to relieve congestion of the portal circulation, by exciting secretion from the intestinal mucous membrane; such, for instance, as equal parts of sulphur and bitartrate of potash, comp. glycerrhyza powd., or the laxative mineral waters. One of the best laxatives and aperient remedies that I have used when the liver is engorged or congested is this:

R Hydrarg, Chlor, Mit.....	gr. iiij.
Fel Bovis Inspissat.....	gr. xxiv.
Quin Sulphat.....	gr. xij.
Ext. Taraxaci.....	3 ss. m.

Ft. in Caps., No. 15.

Sig. Take one capsule before each meal, three times a day. After giving these, the mercury may be omitted from the prescription, or a milder aperient may be used. When the hæmorrhoids are due to hepatic congestion, besides laxatives and purgatives of a cholagogue character, exercise, especially walking uphill and riding, as advised by Lander Brunton, should

be recommended. These forms of exercise tend to compress the liver rhythmically, and more or less forcibly, between the diaphragm and the abdominal muscles. Belladonna, by its action on the vaso-motor nerves, diminishes the calibre of the dilated veins and capillaries in the early stage, and is a valuable agent. Ergot promotes the contraction of the relaxed hæmorrhoidal veins, and is indicated when the piles are attended by hemorrhage.

In hæmorrhoids in puerperal women, the main cause is pressure of the gravid uterus upon the rectum, and the constipation so common in this class of patients, though diarrhoea may also help develop them. There is the same atony in the hæmorrhoidal veins as exists in the muscular coats of the rectum, and the indication is to prescribe something that will restore tonicity of these veins. Dr. Fordyce Barker suggests small doses of aloes, say $\frac{1}{6}$ gr. combined with hyoscyamus, when constipation exists, and with a small quantity of opium when associated with an irritable rectum and frequent, small, thin, teasing evacuations, and having used this suggestion myself in quite a number of cases of this kind, I can testify to its efficacy.

If an ointment is desired, equal parts of ung. gallæ, ung. stramonii and cerat. of subacetat. of lead sometimes gives relief, or an ointment containing muriate of cocain, remembering that cocain is scarcely soluble in any grease or oil, except lanolin, and that this should be the base for ointments containing it. The absorbing power of inflamed hæmorrhoids is very feeble, and hence the local application of salves and ointments frequently does very little good. If protruding and very much inflamed, a poultice of flaxseed-meal gives some relief. Therefore, in summing up the palliative treatment of hæmorrhoids, I would advise and lay great stress on careful attention to the action of the bowels; the state of the anus; the advantages of increasing in the diet the proportion of vegetable food to meat; the eating of fruit; the great importance of physical exercise as preventive of constipation and the injuriousness of stimulants. However, in well-formed and prolapsed piles, such treatment is absolutely futile and the aid of surgery must be invoked to effect a cure.

Surgical Treatment.—When this disease yields so readily to operative treatment, is it not strange that not only the friends of a patient, but frequently even the family physician advise not to have an operation done, and they continue to suffer from harassing symptoms and frequent exacerbations entailing much suffering and loss of time?

While there are a dozen or more recognized operations for hæmorrhoids, there are only two that you often hear mentioned—1. Ligature; 2. Clamp and cautery. The injection method smacks so much of quackery, and is liable to result in embolism, pyæmia, abscess, fistula, fissure, ulceration, sloughing of cellular tissue; causes intense pain in many cases; and, besides all this, does not remove the tumor, but shrivels it up, forming a nodule that may cause future mischief, that, on account of the many complications that may follow and the uncertainty of this method, it is rarely used, and has been confined mostly to the itinerant and is considered the least surgical of all known plans of treatment.

Whitehead, of Manchester, England, in 1887, advocated the method of removing the entire pile-bearing area. His method is to divide the mucous membrane transversely above the hæmorrhoids and from the skin at the anal orifice, then to dissect out that portion between these incisions and stitch the severed free margin of the membrane above to the free margin of the skin, with silk sutures. This operation may deserve a place in the surgery of the rectum, but its adoption has never become general in this country or abroad, because there are simpler, safer, better, and much less painful operations that are quite as effective. And in my opinion, though the books do not mention it, the patient is made the subject of more or less chronic irregularity of defecation, by having the complicated nervous mechanism of the lower part of the rectum destroyed which signals the consciousness to co-operative voluntary expulsive effort. Moreover, no surgeon should select this operation for a patient unless he would himself be willing to submit to it, in the patient's circumstances.

Perhaps the oldest operation, as it was used long before the Christian era, and the safest except the clamp and cautery, is the ligature. After this operation, the wounds take some time to heal, and there is considerable pain; the patient suffering greatly the first twenty-four hours and even two or three days in some cases. When the pedicle is large, the ligature may cut only half way through. This is an unpleasant complication and occurs somewhat frequently, necessitating removal with scissors, increased pain and delayed healing. The suffering and suppuration continue until the ligatures have separated, and the confinement in uncomplicated cases by the ligature method varies from three to five weeks. The cases where the ligature operation should be employed, however, are those having any tendency to cardiac and kidney disease, and when there is an atheromatous condition of the vessels and the patient old and feeble. When it is known that the individual has the hæmorrhagic diathesis, operation must be avoided or undertaken only in case of urgent necessity and then the ligature should be the method employed.

When you have to decide between rival operations let this always be your rule: put in the first rank efficiency; second, safety; third, facility; fourth, gentleness. These should be the criterion for the choice of the operation, and believing the clamp and cautery operation meets these requirements, it has been my favorite operation in nearly all the cases of hæmorrhoids that have come under my care and been subjected to surgical treatment.

After deciding to operate, the preparation of the patient should be careful and thorough. Small daily doses of calomel, followed by a saline laxative. Give a large enema of warm water the night previous to day of operation. Early the next morning have it repeated, and when it has acted thoroughly, a good dose of opium should be given. The patient, of course, should have no breakfast, as an anæsthetic will be required. The patient having been anæsthetized and the sphincter well stretched, preferably with

the thumbs, a large sponge, attached to a good stout thread, should be thrust well up the rectum. The external parts and rectum should be flushed with bichloride of mercury 1-1000 and the bowel later washed out with sterilized water. It is not necessary to shave the parts. Some operate on the side, Sims's position. My preference is the lithotomy position, with the limbs well flexed on the abdomen, and held in position by Cloner's cluch. This gives a better view, doesn't require assistants to hold the buttocks apart, and the operator has the free use of his hands.

The sphincter having been previously stretched, each tumor is then seized with a hæmorrhoidal forceps (Tuttle's is the best) and drawn down. The clamp is then applied to the base of the tumor, and the portion external to the clamp excised with scissors, then the thermo-cautery point, at a dull red heat, is passed over every portion of the stump till all bleeding is arrested, then the clamp is removed. Each tumor is thus successively treated, always taking the precaution to apply the clamp in the longitudinal (up rectum) direction, which prevents contraction and stricture. Irrigate the rectum, remove the sponge and apply carbolized vaseline. Very satisfactory results, after operations for removal of hæmorrhoids, may be obtained by using a suppository of boric acid and 5 gr. of orthoform, introduced after each movement of the bowels. This is a local anæsthetic with considerable antiseptic power, and which develops its analgesic action when it comes into direct contact with exposed ends of nerves. On the third day I have the bowels moved by repeated small doses of salts, if a dose given the night previous is not effective, and thereafter endeavor to secure a daily movement.

The advantages of the clamp and cautery operation are, it is easy to perform, can be quickly and safely done, is less painful than the ligature operation, the healing is much more rapid, the patient being detained from business not over a week. I had one patient a few weeks ago that would not remain indoors and from business but three days. He is a traveling man, and went to work under protest and experienced no bad results from resumption of work. The longest confinement of any case I have ever operated on by clamp and cantery method was ten days. This patient was a physician and had polypus complicating hæmorrhoids. They and the polypus were removed and he was well in one week, but he wished to rest up a few days longer. The only unpleasant result that ever happened to a patient of mine after operation for piles, was suppression of urine, which occurred in one case and lasted twenty-nine hours. The gravest symptoms did not supervene, but the patient's condition gave me some anxiety. I relate this case, to mention the treatment which finally relieved the condition very promptly. After trying some of the diuretics, cupping, poultices of digitalis leaves to the lumbar region, diaphoresis and mild purgation, with a view to restoring the renal function and of inducing a compensatory elimination of urea and the products of tissue-waste by the skin and mucous surfaces, I catheterized the patient at 4 p. m., and found no urine in the bladder whatever. At once gave 1 gr. citrat of caffen per orem and 1-30 gr. strych.

sulphate hypodermically, and ordered him to have another dose of the *caffein* at 5 and 6 o'clock. At 5:45, the nurse phoned me to ask whether it was necessary to give the powder due at 6 o'clock, as the patient had just passed eight ounces of urine. He had no further trouble and returned to his home one week from the time of the operation.

In conclusion, gentlemen, let me say that this subject is a very important and much larger one than it is generally considered to be, and I have been compelled to pass over many points which seem worthy of consideration, and to treat it briefly and somewhat hurriedly.

Lithæmic Cystitis and Its Treatment.

By G. WIGHT, M. D., Bethel, Conn.

ONE of the most interesting monographs published in recent times is that of Haig on the uric acid diathesis, in which he advances most ingenious theories as to the causation of disease by the uric acid toxin. Notwithstanding the fact, however, that he devotes such an unusual amount of space to this one topic, and includes within the uric acid category nearly every malady that flesh is heir to, yet he says little or nothing on the bearing of uric acid excess on the *genito-urinary organs*. In truth, there is very little literature on this point to be found anywhere, though the importance of the subject will be admitted by all.

After long and tedious examination of various authorities we find that Gouley, in his treatise on "Diseases of the Urinary Organs," p. 106, alludes to the fact that some of the most distressing cases of cystitis are caused by uric acid excess. Prof. Keys, too, in his admirable work ("Genito-Urinary Diseases with Syphilis," p. 322), says: "There are no inflammatory conditions, acute or chronic, of any portion of the urinary passages which are not aggravated by over-acid urine, while some of them are caused in the first place by it."

Having witnessed so often the tendency of the urates and uric acid crystals to become precipitated on the bottom and sides of a vessel into which urine has been voided, especially if the vessel stand a few moments in a cool room, we can scarcely avoid the conclusion that there are many causes, mechanical and otherwise, that, under certain favorable conditions, would produce a similar deposit in the bladder itself. We know that the urate salts are precipitated from the blood whenever the latter for any reason is made less alkaline than usual, and we know that such a state of affairs never occurs more certainly than when there is an abrupt cooling of the entire surface of the body, and the acid excretion from the skin is thereby checked, as when leaving a hot room or theatre and entering at once into the chill night air outside—which, by the way, is already recognized as a frequent cause of cystitis, as well as inflammation of other mucous membranes. May not, therefore, this sudden deposition of the uric acid salts in

the mucus membranes and various connective tissues of the body, serve to explain the *modus operandi* of "catching cold?" If so, we can readily understand why hot alkaline drinks are so beneficial in such cases and often abort the "cold."

Many lithæmic subjects—especially middle-aged business men, overfed, and thin anæmic women, overworked—pass urine which is habitually strongly acid, high-colored and of high specific gravity, depositing uric acid or mixed urates on cooling. In such cases any reduction of the alkalinity of the body secretions causes molecular storing of the uric acid salts on the floor of the bladder and elsewhere, with its train of attendant evils, for, that uric acid is a chemical irritant and will eventually set up congestion and inflammation of surrounding tissues, is abundantly evidenced by the results which follow the deposition of its salts in the fibrous tissues of the joints—as in gout or rheumatism. It is to these cases, therefore, and they are very common, that the term "lithæmic cystitis" is meant to apply.

Inflammation of the mucous membrane of the bladder having once become firmly established, the constant presence of pus there decomposes the urea of the urine, liberating the volatile carbonate of ammonium, thus rendering the urine alkaline and ammoniacal, with the characteristic fleshy or organic smell and dark-brownish sediment. This alkaline fermentation of course causes intense pain, the bladder becoming distended with the liberated gas in the same manner as do the stomach and intestines in case of fermentation of the undigested contents of either of those organs. While it is true, therefore, that in chronic cystitis the urine voided is distinctly alkaline, yet at the moment of its entrance into the bladder from the ureter it is as strongly acid as ever, and is constantly bringing down lime and urate salts to serve as irritant foreign bodies to the inflamed area.

In all of these lithæmic cases there exists in combination with the genito-urinary trouble a general disturbance of the gastro-intestinal tract, the patients complaining of indigestion and constipation, and usually having flabby, heavily-coated tongues and foul breath. It is evident that such a condition is unfavorable to the cystitis, for with constipation present the liquids which should pass off with the fæces are retained, and the acid contents of the bladder are proportionately increased. Saline laxatives, therefore, are plainly indicated to reduce the amount of the bladder's work.

Hitherto our treatment of these cases have been mainly empirical. We have treated the symptoms. We have relieved pain. We have applied to the affected surface various medicaments to abort or reduce the inflammation; but we have never removed the toxin itself, that which caused and will keep up the inflammation indefinitely. It is manifestly our duty, when confronted with a case of chronic cystitis, the symptoms and history of which point toward lithæmia, to prescribe at once an effective uric acid solvent. For this purpose the laxative salt of lithia, thialion, is now being recognized as one of the most efficient therapeutic agents at our command. Its great advantage in this class of cases is attributed partly to its anti-lithic effect, and

partly to its stimulating action on the liver, producing outward osmosis and free bilious discharges from the bowels. In the case given below the effect of the remedy was so immediate and gratifying, that it is cited here as a point in favor of the uric acid theory of causation and treatment of the disease under consideration.

Mrs. B., American., æt. 40, married, with two children, was a sufferer for many years with chronic cystitis. She had become broken down and very thin, evidencing an abnormal condition that required instant relief. Her principal complaints were backache, sacral pain radiating upward and backward from the perineum, and a desire to strain after the act of micturition as though the bladder was not fully emptied. Indeed the tenesmus was at times so great as to leave her quite exhausted for a number of minutes. She urinated frequently during the day, and was obliged to get up often during the night, the resultant loss of sleep inducing finally a state of extreme nervousness. Jolting or riding, too, caused severe pain over the region of the bladder, and she was obliged to confine herself largely to the house.

The treatment consisted of teaspoonful doses of thialion administered in half a glassful of hot water three times daily before meals. This was kept up pretty regularly during the entire treatment, the patient being instructed of course to diminish the dose if the bowels should become too loose, or the litmus paper indicated a urine too strongly alkaline. She was advised to drink much milk and to partake but sparingly of nitrogenous foods.

The result of this simple method of treatment was all that could be desired. After taking four ounces of the remedy the improvement was most marked in every respect. She was rarely obliged to get up at night, the backache disappeared and the constant desire to urinate became a thing of the past. She could ride slowly, too, in a carriage without experiencing any distress. In this manner she continued to improve for another fortnight, or until she had taken the second bottle, at which time, notwithstanding she had been ill for many years, her general and local condition had reached such a favorable stage as to require no further treatment.

A Remarkable Accident.—The following case is reported by Dr. J. W. Bird (*The Laryngoscope*): Mr. H., aged 24, while running across the yard in the dark, ran into a wire clothesline. The wire drew through his mouth and caught in his teeth, throwing him to the ground and tearing out nearly all of the left superior maxillary with eight teeth on it. The dimensions of the bone were as follows: External surface, two and a half inches; height, one and five-eighths inches; and depth one inch. The left half of the roof of the mouth, the floor and outer wall of the nasal fossa were removed with the bone. The Schneiderian membrane and periosteum, lining the fossa, were not ruptured, so the nasal passage is normal. The line of fracture was through the antrum of Highmore, and at the lower margin of the infra-orbital foramen. The unusual feature of the case is that there is no perceptible scar or deformity of the face. This serves to illustrate how extensive injuries about the nose and throat might heal and leave no deformity.

SELECTED PAPER.

Chronic Renal Disease.*

Etiology and Pathology.

By E. G. MATSON, M. D.

Professor of Pathology in the Western Pennsylvania Medical College of Pittsburg.

Prognosis and Treatment.

By H. A. HARE, M. D.

Professor of Therapeutics in the Jefferson Medical College of Philadelphia.

ETIOLOGY AND PATHOLOGY.

The unit of kidney construction is the uriniferous tubule together with its attendant blood-vessels. Each one of these is a complete organ in itself, which may discharge its functions as long as it is intact, irrespective of the condition of its fellows. Since the entire number doubtless more than suffices for the needs of their owner, and the animal economy, if given time, can accommodate itself to an increasing deficiency in one of its organs, it is not remarkable that the slowly developing inflammations should be in the highest degree insidious in character.

The position of the kidneys is well calculated to protect them against external influences. Among glands provided with ducts they alone have the advantage of communicating with aseptic cavities—that is of course in the normal state. In consequence we are justified in assuming that the inflammatory disturbances of these organs when they are not extensions from the genito-urinary tract lower down, arise from the action of irritants carried to them by the blood-vessels.

That poisonous substances dissolved in the blood can excite inflammation in passing through the kidneys is made obvious by the action of the metallic poisons, such as lead, arsenic, mercury, phosphorous and others. The same mode of operation can be claimed for alcohol.

Toxic substances of bacterial origin undoubtedly cause the renal complications of the infectious diseases, whether acute or chronic. So much can be confidently affirmed in the case of diphtheria, of which the well known toxins have the power to excite severe inflammation in tissues into which they are introduced. In some infectious diseases, such as pyæmia and typhoid fever, the specific organisms are carried to the kidney by the blood current in which the nephritis is rather an extension of the original disease than a complication.

Since these substances act from the blood-vessels the effects are frequently visible in other organs, especially in the liver. There are two reasons why the kidneys should be especially affected by these general causes; in the first place the amount of blood and therefore of its dissolved poisons which passes through the kidneys is very great, as is evident from the size

*Read at the meeting of the Medical Society of the State of Pennsylvania, at Johnstown, May 18, 1899.

of its vessels as compared with the size of the organ supplied. In the second place the kidneys play the most important part in the elimination of poisons. The operation of excretion must be considered to expose the tissues of these organs to the noxious influences of these poisons in greater degree than if they only passed through their vessels.

While in these cases the etiology of renal inflammation is intelligible enough there still remains a considerable number of cases in which the nature of the poison in the blood is entirely unknown. The fact of its existence cannot be proved, though we are led to assume it from the apparent necessity for a hematogenic cause. For example, toxic substances may sometimes be absorbed from the intestinal tract.

Exposure to cold is always set down as a cause of renal inflammation. The mode of operation is not obvious, but perhaps the fact is demonstrated.

These are the exciting causes of nephritis, both acute and chronic. The predisposing causes, except the conditions of life which have a direct relation to the exciting causes, are not so much dwelt upon. The kidneys of very old people are rarely entirely normal. These senile changes closely resemble the more chronic forms of inflammation. It is possible that these tendencies arise at a much earlier period of life in some persons in whom comparatively slight exciting causes, resisted, by most individuals without damage, produce disproportionate effects.

The chronic renal inflammations arise from the causes indicated acting in slight degrees, but for a longer time, or follow the subsidence of an acute attack. In general, a chronic inflammation implies a continuous irritant. Rest is, however, essential to the healing process, but the kidneys must work without intermission. The infectious diseases generally cause acute processes which pass away in case of recovery without a trace. Yet it is doubtful whether evidence exists to decide how often the attacks of infectious diseases in early life are the cause of renal symptoms at later periods. With a long latent period the connection could not be traced. It is easily possible that death from Bright's disease will be less common than now, should infectious diseases be entirely suppressed in some future epoch of the human race.

The process of inflammation in the tissues of the kidney is not essentially different from that in other organs. It is made up of vascular and degenerative changes on the one hand, and proliferation and organization of the interstitial connective tissues on the other. The more acute the process, the more closely it resembles the phenomena of inflammation in Cohnheim's experiment. The longer the duration the greater the predominance of the hyperplastic processes.

In chronic inflammations everywhere proliferation of the connective tissues takes place. When this new connective tissue fills a gap it may serve a useful purpose, though the scar contains no glands; when it is formed in the depths of vital organs, it is as much out of place as the tissues of a tumor. The distinction of exudative and non-exudative forms is scarcely valid, since the

urine in both forms contains albumins, though in very different degrees. The terms parenchymatous and interstitial describe two extremes, but leave many intermediate forms out of the classification. A classification based entirely upon post-mortem appearances has the disadvantage of unduly exalting a single phase in a process which extends over years. It is evident that the large white kidney was not a large white kidney from the first and that the contracting kidney must have passed through many stages before reaching the condition found at death.

There are no means of direct observation of the whole succession of changes which take place ending with the state which produces death, and we are consequently left to inference. We can fairly assume that the contracting kidney has never passed through the phase of a large white kidney, since the latter is inconsistent with life. If we turn from the entire kidney to a consideration of the units which compose it, this difficulty does not arise.

Death occurs at the period when the kidneys are unable to perform the functions in the degree required for life of the organism. The destructive process of a disease of a vital organ, when less rapid than acute yellow atrophy of the liver, is never complete at the moment of death. If all the uriniferous tubules are equally affected by the morbid process, the pathological anatomy is necessarily different from the condition found when the disease creeps from tubule to tubule and from cell to cell, destroying some completely before others are at all impaired. In the latter case, the amount of destruction may be greatest because the economy has had the longest time in which to accommodate itself to an imperfectly performed function, and symptoms may be delayed until the redundant machinery is used up.

The uriniferous tubules are found in the cortex entangled together with numerous vessels, but are associated with very little connective tissue except at their beginning in the capsule of Bowman, which is made up of a fibrous membrane. The part known as Henle's loop, dips down into the medulla. The brunt of the inflammatory processes, especially the degeneration and atrophic changes, falls upon this portion. Swelling is indicated by thickening of the cortex. It is also thickened by a cellular hyperplasia. Change in color to gray or yellow, indicates varying degrees of cloudy swelling and fatty degeneration. The lighter colors may be varied with red, due to congested or hæmorrhagic portions. Interstitial tissue, when it has reached the fibrous stage, causes the capsule to be adherent, the cortex to be diminished in thickness due to atrophy of the epithelium of the uriniferous tubules, the organ harder, and generally smaller.

It remains to describe the different forms of the kidney as found post-mortem, after death from chronic renal disease.

Under the head of parenchymatous inflammation may be placed the large white kidney with a thick white cortex and swollen and congested pyramids. The capsules strip readily. Instead of being quite uniform, this kidney may be mottled by congested and hæmorrhagic places in the cortex. Again the fatty degenerative changes may be more complete, the capsule

somewhat adherent, and the organ not enlarged or less than normal in size. Most of the victims of parenchymatous nephritis have one of these forms of kidneys. Here, too, are classed kidneys of small size, red or red mottled or gray in color with diminished cortex and adherent capsules.

Under the head of interstitial nephritis, contracted kidneys, considered to be secondary to parenchymatous nephritis, and primary interstitial nephritis, exceedingly insidious in origin and long in duration, are classed. In interstitial nephritis the epithelium has largely disappeared, the interstitial tissue has become abundant, the vessels are commonly thickened and in a state of hyaline degeneration. Since there is an increase in the connective tissue, while there is an atrophy of the epithelial, the kidney is not always smaller than normal. The capsule is adherent and the organ is firmer than normal. The cyanotic kidney, the result of valvular heart disease, often terminates in the interstitial form.

PROGNOSIS AND TREATMENT.

No sooner does the physician recognize the presence of inflammation in the kidney, than the question arises in his mind and in the mind of the patient, "What is the prospect of recovery, and what is the probable duration of life, if the renal condition is incurable?" Before it is possible for us to discuss these interesting points, it is necessary for us to divide the various forms of nephritis into groups, which are based upon the renal changes present in each. At the very first, we must separate acute nephritis from the chronic degenerative forms of renal disorder, because its causation, duration and pathological conditions are so different from the chronic type, that it is an entirely different entity. This fact has been well emphasized by the paper of my colleague in this debate, and therefore, I need not describe what the anatomical and etiological differences are. Suffice it to state that the prognosis of acute diffuse nephritis is as a rule quite favorable. Thus we find that a large proportion of these cases recover, but the percentage of recoveries is difficult to determine, since other conditions are often associated with the renal change. Thus in the acute nephritis of childhood dependent upon scarlet fever there is, aside from the toxæmia which arises from inactive kidneys, the additional toxæmia of the scarlet fever poison itself, and in many cases sepsis from infection from other micro-organisms, such as the streptococcus, which aid in hastening a fatal issue.

Further, the degenerative changes in the heart and vessels, the pulmonary and pharyngeal complications and the fever all tend to throw additional factors into the scale and tend to cause death in scarlatinal nephritis, aside from the evil influence produced by this condition itself. In the case of children, the prognosis of an acute nephritis complicating scarlet fever is favorable in direct proportion to the severity of these general influences, and the longer the child survives these inimical influences, the greater probability is there of recovery. This is of course true of all prognosis, but it is

especially true of this period of life, for children possess such wonderful reparative power, that if they can but survive the mixed toxæmia for a few days, there is great probability of the damaged cells in the kidney being repaired or replaced, so that normal renal function will be possible. It is true, as is well emphasized by Strumpel, that every case must be judged with great caution, partly because it may be the starting point of subsequent chronic renal disease, and partly because dangerous sequelæ may develop in cases which at first seem mild. There are three factors of prime importance in this class of cases, namely, the degree of toxæmia or severity of infection, the degree of anasarca because it shows vascular, cardiac and renal trouble, and produces serious complications by mechanical pressure, and the presence of marked signs of irritation of the nervous system or of depression of its activity by poisons.

Given a case of acute nephritis in a child, it is evident from what we have already said that if the acute conditions produced by the inactivity of the kidneys can be survived, recovery will in all probability take place. Some of these cases, however, develop such a profound degree of toxæmia that the condition is hopeless, all the secreting cells of the kidney being destroyed or their functions set aside so completely that death ensues before the kidney recovers sufficiently to eliminate toxic materials from the blood. When this condition is developed, remedial measures are necessarily to a large extent impotent, because the condition is so far advanced. As a matter of fact, in the acute nephritis of both children and adults, the largest part of treatment, if it is to be successful, must be prophylactic, and if precautionary measures are taken, grave renal complications can often be avoided. This is well illustrated by those cases of scarlet fever in children in which the primary manifestations of the disease are very mild, so mild that the careless physician and nurse do not insist upon the patient remaining in bed, but nevertheless, in a short time evidences of advanced kidney involvement develop, and death speedily ensues.

By the administration of mild alkaline diuretics, copious draughts of pure water, the use of purgatives will rid the body of toxic materials through the bowels, and improve the abdominal circulation, much can be done towards preventing severe renal involvement. Further than this, by the use of hydro-therapeutic measures which improve the circulation, such such as cold sponging and friction, stasis of the blood in the kidney can be avoided and a large amount of toxæmia set aside, just as we set it aside in typhoid fever by such measures, and it is a well-known fact, that even when toxæmia is advanced and renal secretion is scanty, the placing of the patient in a warm bath and then dashing cold water over the head, shoulders and back will by the circulatory reaction which develops, restore the patient to consciousness and increase urinary flow. Such treatment also increase the elimination of poisons by the skin.

It is well to emphasize the fact that should cold water be employed, active friction must be employed with it, and reaction must be produced, for

if friction is not employed, and if the bath is continued for a long period of time, so that the circulation is impaired, more damage is done than if this measure were not employed. In other words, the use of hydro-therapy in this condition must be governed by the knowledge of the methods by which it should be employed.

When we come to the consideration of the two forms of chronic nephritis, the parenchymatous and interstitial, we find that prophylactic treatment can rarely be instituted, since both conditions are so insidious in their onset that the patient is usually well advanced in the disease before he presents himself for treatment. Prophylactic treatment in these cases must therefore be devoted to the prevention of the spread of the disease as far as possible, the relief of symptoms which may be annoying or dangerous, and the institution of a course of dietetics and medication which will also tend to relieve symptoms and to enable the patient to avoid throwing extra strains upon his kidneys. In other words, the mode of life to be followed by the patient is an important point with which the physician must deal.

I have recently seen a case in consultation which emphasizes this fact very strongly. A patient, a man of 50 odd years, apparently in perfect health, insisted upon riding some 30 or 40 miles on a bicycle at a high rate of speed. The subsequent course of the disease proved that he had been suffering for a number of months with an insidious nephritis, which immediately became severe in its manifestations, causing his death at the end of three weeks. Doubtless the violent strain put upon his heart and kidneys by this exercise, precipitated the fatal issue, and had the patient been warned of the danger of such excessive exercise, his life might have been prolonged. On the other hand, renal cases should not be deprived of all exercise, unless it is evident that a feeble heart requires rest.

In regard to the question of diet, it is evident that no cast iron rules can be laid down, and many cases of chronic contracted kidney, unless they are markedly gouty, can have a liberal diet, provided it is one which is easily digested, and not calculated to produce gastric and intestinal disturbances. In other words, those patients need not have their meat cut from the diet list, but should be allowed to take good wholesome food, provided that it is not taken in excessive quantity.

In chronic parenchymatous nephritis, it has been held by many practitioners, as is well known, that it is our duty to eliminate from the diet list eggs and red meats; on the other hand, many physicians of large experience are coming to the belief that this is depriving the patient of a large amount of nourishing food, which in reality he can take with impunity, provided that it is not taken in excess of the needs of the system.

Probably the most satisfactory rule to be followed in these cases is to be governed by the effect of the administration of eggs and meats upon the patient, and upon his elimination of albumin. If on the administration of eggs and meat his albuminuria is markedly increased, and he does not seem to do so well in general, it is evident that these articles should be taken from

him. If on the other hand, his general health and strength improve by their use, and the albuminuria is not increased, it is evident that they should be allowed. In some cases, where the albuminuria is marked, the use of albuminous food seems to take the place of the albumin which has been lost through the kidneys. Of course in cases of acute nephritis, it is advisable to avoid albuminous food until the acute period of the disease is passed by.

Where there is marked diminution of urinary flow, as we ordinarily find it in parenchymatous nephritis, one of the most important functions of the physician is to increase this secretion. Drugs have been much abused under these circumstances. Too often they are administered without clear ideas of what they are to accomplish. If it is believed that the scanty urine depends upon inactivity of the renal epithelium, the administration of caffeine may be wise, or in other instances, the production of free diuresis by the use of bitartrate of potassium and juniper berries in infusion may produce the best results. This old combination, which has to a large extent dropped out of use with some practitioners, is much too valuable to be lost sight of.

If, on the other hand, an examination of the heart indicates that this organ is unduly feeble, and that the albuminuria and scanty renal secretion depend upon renal stasis, then digitalis or strophanthus alone or combined with juniper berries and bitartrate of potassium are very useful. It has been thought by some persons that it is advisable in this class of patients to increase urinary flow by the administration of copious draughts of pure water. While this may be good therapeutics in a certain number of cases, it should be governed by the dropsical condition of the patient; if there is deficient renal elimination of fluid, because the kidneys are unable to pass it out of the blood, it is manifest that copious draughts of water will not remove impurities from the body, but will simply tend to increase dropsical tendencies.

So far as I know, there are no drugs which distinctly decrease the elimination of albumin in advanced parenchymatous nephritis, and it seems to me doubtful whether the attempts to check the escape of albumin by such drugs is wise, since if they succeed they probably also decrease the elimination of impurities from the blood. Most of these remedies are astringents which are supposed to act by contracting the renal blood vessels. There is, however, one drug which is to be remembered in cases of parenchymatous nephritis for the anæmia, namely iron. On the other hand, this drug is too much relied on by many physicians. Aside from the fact that when given in Basham's mixture, a diuretic effect is produced, the large doses of iron which are frequently given in this way probably do more harm than good, as they tend to produce constipation, and only very minute amounts of iron can be utilized. Probably spirits of mindererus when given alone, would produce almost equally good results, and if minute doses of iron are given in pill form, equally good influences would be produced in combating anæmia.

For the relief of dropsy, there is no doubt that hydragogue purgatives are useful in many cases. Oftentimes the unloading of the intestines by the

use of purgatives decreases the congestion of the liver which is sometimes met with in these cases owing to secondary cardiac complications, and improves the patient wonderfully. Equally, if not more important, than the use of purgatives, is the use of copious sweating produced by hot air baths or by the hot pack. These therapeutic measures are of the greatest possible value, and are so well known that it is not necessary for me to describe them in this paper.

In my experience, the so-called medicinal diaphoretics are not of very great value. The profession is learning more and more that pilocarpine is too depressant to be employed in most of these cases, and either because of its depressing effect upon the heart, or by reason of its causing a profuse outpouring of secretion into the bronchial tubes, its use is apt to produce that gravest of all complications in nephritis, namely edema of the lungs. I do not think it ought ever to be employed in combating uremia, except perhaps when given in very minute doses, to aid the action of the hot pack, and then the circulatory system should be assisted by minute doses of strychnine, which drug, however, may be contra-indicated if the poisons of the disease seem to be producing great nervous irritation.

This important subject can well take many more minutes of your time, but the limitations which necessarily exist, force me to close this discussion. In doing so, however, let me remind you that when uremia is once well marked, hypodermoclysis or intravenous transfusion of normal saline solution will oftentimes produce excellent results. Better results are obtained by this means in cases of uremia coming on as a result of chronic contracted kidney than in those due to parenchymatous nephritis, and when dropsy is marked they are least valuable.

In plethoric patients or others with a high arterial tension, venesection is often advantageous.

Last of all, I may say a word to you in regard to the contradictory views concerning the use of morphine in uremia. These contradictions, I believe to be rather more apparent than real. Uremia is the result of a complex poisoning. In some instances poisons seem to be present which exercise a powerful depressing effect upon the nervous system, in others their effect seems to be that of irritation. Probably those cases which have been greatly benefited by the administration of morphine are cases in which the sedation of the nervous system produced by this drug is beneficial, whereas in those cases in which this condition has not been present, the administration of morphine has simply increased the nervous atony. On the other hand, Sir George Johnson has recorded instances in which, in his opinion, the employment of morphine has caused rapidly recurring and ultimately fatal convulsions, perhaps by diminishing the excretory work of the kidneys and producing constipation, and in Nestor Tirard's recent book upon renal disease, he uses these pregnant words in regard to the use of morphine: "I have always refrained from the use of a drug which might produce present comfort at the cost of the life of the patient."

As I have already said, it is evident that the question of the administration of morphine must be decided in each individual case, and that it cannot be ordered for or denied to every patient who presents himself with this grave malady.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.
Editors and Proprietors.

W. H. WAKEFIELD, M. D.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.
J. HOWELL WAY, M. D., Waynesville, N. C.
J. ALLISON HODGES, M. D., Richmond, Va.
S. WESTRY BATTLE, M. D., Asheville, N. C.
GEO. G. THOMAS, M. D., Wilmington, N. C.

R. L. PAYNE, M. D., Norfolk, Va.
H. S. LOTT, M. D., Winston, N. C.
J. W. LONG, M. D., Salisbury, N. C.
H. A. ROYSTER, M. D., Raleigh, N. C.
ALBERT ANDERSON, M. D., Wilson, N. C.

J. P. MONROE, M. D., Davidson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

THE DRUG HABIT AMONG PHYSICIANS.

In a recent paper read before the New York State Medical Association, Dr. T. D. Crothers presented some remarkable statistics showing the prevalence of the drug habit among physicians. From a personal study of 3,244 medical men, he claims to have found 21 per cent. who were either secretly or openly the victims of alcohol or drugs. He draws the conclusion from his investigations that 6 per cent. of the physicians of this country are opium inebriates—a very startling statement. He also says that a large number of physicians die as a direct result of their use of morphine by means of hypodermic syringe. Dr. Crothers' paper has naturally caused a very considerable degree of comment, not only in the medical press, but in the newspapers as well, for it is a question in which the public at large is interested, since as the writer very correctly says, no patient is safe in the hands of a physician who takes morphine.

While no one could consistently deny the conclusions arrived at in this paper, as regards the moral and physical evils of the opium habit, there are many who will take exceptions to the facts upon which the conclusions are based. It is indeed much to be doubted if of the 100,000 physicians of this country, 21,000 are drug and liquor habitues. From personal experience and observation we would also be inclined to dissent from the opinion that 6 per cent. of the profession are the pitiable victims of morphine or opium in any form. Dr. Crothers, who is said to have made a specialty of this subject, is at any rate hardly justified in fastening such an indictment upon 100,000 men from the study of 3,000.

On the other hand it cannot be gainsaid that of the three learned pro-

fessions, ours is peculiarly susceptible to the insidious drug habit. The reasons for this are sufficiently obvious to any one acquainted with the daily life of the busy doctor, particularly the general practitioner. It has been our observation that the drug habits of the profession are found most often in the smaller towns and thinly settled sections, whether because of the monotonous life lead by the physicians in these isolated points, or due to their laborious work, we cannot say. Then again the mere fact that he has always the means at hand for alleviating pain with the probability of being enabled to pursue his work without the loss of any time, often renders the medical man only too prompt in resorting to a narcotic in his own case, where in that of another he would prescribe a slower, perhaps, but safer means of relief. Once this insidious habit has been firmly fixed, the unhappy victim has in the great majority of cases—some say all—passed beyond the reach of human help. We entirely agree with Dr. Crothers, that it would be far better for the physician in case of sickness, where so powerful an anodyne as morphine is required, to have it administered by a brother practitioner, and never, in his own case, by himself. The same thing is even more true as regards the layman, in whom the majority of instances of opium habit are the direct result of taking into their own hands the employment of powerful anodynes. It is not always an easy matter to recognize the habitual user of opium, even in fairly large quantities, although sooner or later, despite his skill in concealing his weakness, it will be patent to the close observer. We remember to have been told by a highly intelligent physician that he always suspected the secret use of opium, where with no sufficient reason, an individual habitually sat up most of the night and spent the greater part of the day in bed.

All observers are unanimous in agreeing upon the disastrous effects of the chronic use of opium on the mental and moral functions of the individual, in fact, the psychic symptoms overshadow the purely physical ones. Of all the alkaloids, morphine is most frequently the cause of insanity. It would seem entirely superfluous to warn physicians, in the face of so many pitiable wrecks from this cause, against carelessness in the use of this powerful remedial agent, not only with themselves, but with their patients.

THE BACTERICIDAL POWER OF SUNSHINE.

Some of the older of our readers may perhaps remember something of what thirty years ago was called the "blue glass craze." The subject of the therapeutic properties of the solar rays has recently been revived by a publication of the observations of two Danish scientists, Tinsen and Bie (*Philadelphia Medical Journal*, Oct. 7th, 1899), although the curative influences of sunshine in certain conditions has been recognized for a long time. The two observers referred to, however, seem to have reduced the matter to a much more scientific footing, and from the report, have been very successful in the treatment of tubercular skin diseases—notably in lupus vulgaris in which the method seems to have been remarkably beneficial. To a lesser

degree alopecia areata was found to yield to the same treatment. Tinsen has found that the therapeutic properties of the solar rays are present in blue and violet rays, these possessing the bactericidal power. He therefore excludes the red and concentrates the remaining rays by passing the sunshine through a lens filled with a blue solution. It is claimed that direct sunlight will kill tubercle bacilli in two or three hours, and other germs are equally susceptible.

OPPOSED TO VACCINATION.

Our friends the Christian Scientists are getting to occupy a very prominent place in the courts all over the country. The most recent instance of their defiance of the law occurred in Americus, Ga., where, according to the press dispatches, almost the entire body of the elect were brought before the mayor's court to answer to the charge of refusing to submit to the ordinance requiring vaccination of all unprotected persons. It is stated that among the number were twenty ladies, many of them prominent in the community. They will probably be given the choice of going to jail or being quarantined in their homes. A Mrs. Raines, for the same offence, was sentenced to jail for thirty days. That peculiar obtuseness of mind to anything savoring of reason or common sense, which is so highly developed in the followers of Mrs. Eddy, is well exhibited in the present case, for, if there is anything in medical science more than another susceptible of incontrovertable proof it is the efficiency of vaccination as a prophylaxis against variola. That portion of the crebrum, however, which takes cognizance of facts or accepts the evidences of the five senses seems to respond no longer to its natural stimulant in the brain of the Christian Scientists. So long as these people confine their practice to matters concerning themselves alone, no one has a moral or legal right to interfere—an individual is entirely at liberty to treat himself by any method he chooses, or to dispense with treatment altogether in so far as his liberty does not infringe upon the rights of others—but when freedom in this respect jeopardizes the health of the community by ignoring, for instance, the ordinary safeguard observed by all reasonable men against the spread of highly contagious and deadly diseases, his so-called individual rights cannot be maintained in law or in morals.

Malaria of the Central Nervous System.—Marinesco (*Comptes Rend. de la Soc. de Biol.*, 24, 3, 1899) reports an interesting case of malaria in which the autopsy revealed among other details a severe degree of nerve disease. The examination of the brain showed that the gray matter was completely discolored and almost violet in hue; the white matter also was of a mottled grayish blue. On microscopical examination it was discovered that this discoloration was due to an immense number of minute pigmented bodies which filled the arterioles and capillaries of the brain and cord. These small pigmented bodies were the Laveran malarial parasites, and their presence in such overwhelming numbers in the vascular system of the brain and cord must be considered a great rarity.

Book Reviews.

- .. **Lea's Series of Pocket Text-Books—Malsbary's Practice of Medicine.** Just ready. A Pocket Text-Book of Theory and Practice of Medicine by George E. Malsbary, M. D., Assistant to the Chair of Theory and Practice of Medicine, Medical College of Ohio, Cincinnati. In one handsome 12mo. volume of 405 pages, with 45 illustrations. Cloth, \$1.75, net.

This is the third of the sixteen volumes composing Lea's Series of Pocket Text-Books, and a review of its pages shows the present one to be fully up to the standard of excellence exhibited in the two preceeding volumes. The idea underlying the publication of a series of text-books of this kind is to give in relatively small bulk an accurate but brief epitome of the subject in a form readily accessible to the busy doctor or to the student. All the standard authors have been consulted in the preparation of the book, and the most recent advances of medical science are placed before the reader. The various diseases are treated in a systematic manner and no really important fact is omitted in the text. As a ready reference book, containing in concise but sufficiently full form for all practical purposes, the essential facts of practice, the present volume will prove most satisfactory.

Saunders' Question-Compends, No. 14.—Essentials of Diseases of Eye, Nose and Throat.—Part I. Essentials of Refraction and the Diseases of the Eye, by Edward Jackson, A. M., M. D., Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine; Attending Surgeon to the Wills Eye Hospital; Member of the American Ophthalmological Society; Fellow of the College of Physicians of Philadelphia, etc. Part II. Essentials of Diseases of the Nose and Throat, by E. B. Gleason, S. B., M. D., Surgeon in Charge of the Nose, Throat, and Ear Department of the Northern Dispensary of Philadelphia; Formerly Assistant in the Nose and Throat Dispensary of the Hospital of the University of Pennsylvania, and Assistant in the Nose and Throat Department of the Union Dispensary; Fellow of the American Academy of Medicine; Member of the German Medical Society, of the Philadelphia Polyclinic Medical Society, etc., etc. Second Edition. Revised. 124 Illustrations. W. B. Saunders, Publisher, Philadelphia. Price, \$1.00, Net.

This is one of an excellent series of question-compends, giving in the form of questions and answers the essential facts of the subject dealt with. The text is given wholly to the settled facts of the particular branch of practice treated of, as it is obvious that to enter upon debatable ground and theoretical dissertation would in the present instance be entirely beside the object sought. In our opinion this is one of the best of the "Question-Compend" series we have seen, and to any one desiring to post himself upon this specialty, or who contemplates taking a special course of instructions, the present volume is highly recommended.

The Coming Age, for November 2nd, opens with "The Art Outlook for America" by F. E. Elwell. This is followed by "X-Ray Vision or Super-Normal Sight" by Frank W. Brett, M. D., in which is described the peculiar power possessed by his little son, a healthy boy of twelve, of seeing, when hypnotized, the bones of the living body—a number of cases are cited to illustrate this peculiar power of sight.

R. Osgood Mason, M. D., writes entertainingly of "The New Therapeutics," viz: Hypnotism and suggestion when in the hypnotic state.

"Miss Willard's Christian Socialism" is the title of a paper by Eltweed Pomeroy.

"The Church and Social Problems" by Rev. S. H. Spencer, A. M.

"The Supreme Sphere Above Humanity and its Demand" is cleverly handled by Prof. J. R. Buchanan, M. D. Many other papers and interesting items are found in this number.

The Dixie Magazine for November contains two delightful Southern Romances, "The Revenge of Copper Kettle" by Annie T. Colcock, illustrated,

and "A Story in Black in White" by Alice Baxton, illustrated. "The Aboriginal Population of The Chesapeake" a historical sketch by Claudia Stewart Coles, tells of the passing of the "Red Man" of that region.

Elihu S. Riley contributes a "Historical Baltimore Romance," illustrated, in which Jerome Bonaparte, King of Westphalia, is one of the principal figures. On the whole, this number is a strong one.

HOSPITAL NEWS.

The W. G. Newman, Jr., Hospital.—On November 5th the W. G. Newman, Jr., Hospital, in Salisbury, N. C., was formerly opened. A number of citizens, composing a select crowd, attended the opening and dedication. The opening was an auspicious one indeed. The Board of Lady Managers gave an elegant spread to friends present.

The hospital was dedicated with appropriate services. Dr. Rumble was master of ceremonies and he was assisted in the services by Revs. L. E. Busby, J. R. Brooks, Father Joseph, Gerny Weber, John Wakefield, M. E. Parrish and J. H. Weaver. The building was tastefully decorated with potted flowers and plants and cut flowers. The house was thrown open for the visitors, and all expressed themselves as highly pleased with the apartments and the excellent arrangement of the interior for the work for which the place was dedicated.

This hospital is the enterprise of Dr. J. W. Long, who is well-known throughout the State, and Dr. W. A. Newman, until recently a citizen of Virginia, and has been equipped through the liberality of W. G. Newman, the millionaire copper mine owner, and the institution has been appropriately named after Mr. Newman's little son, who recently died.

The hospital opened with twelve beds, and has already had to order six more to accommodate the increasing number of patients. A training school for nurses will also be conducted at the institution.

Statesville Hospital.—Through the benevolence of Mr. C. S. Billingsley, a fully equipped, modern hospital will soon be erected in Statesville. We do not know by what name it will be called, but we know the doctors of Statesville, all of them, and we predict good work will be done within the walls of Statesville Hospital.

Charity Hospital in Richmond.—The plans have recently been completed for the erection and maintainance of a large charity hospital in the city of Richmond, Va. The building will cost about \$100,000, and will be the largest in the South, excepting one in New Orleans. This institution will be under the control of the Medical College of Va. The moving spirits in the matter are Drs. G. Ben Johnson and Emon G. Williams.

The New St. Luke's Hospital.—Finding it necessary to obtain more room in order to accomodate the increasing number of patients, Dr. Hunter McGuire is building a new hospital on the corner of Grace and Harrison Streets, Richmond. The work done at old St. Luke's will "go down the ages," and we predict an equally successful career for the new St. Luke's.

Southern Surgical and Gynecological Association.—The next meeting of this body will be held in New Orleans, December 5th, 6th and 7th.

Review of Medical and Surgical Progress.

Epitome of Surgical Progress.

By JOHN H. GIBBON, of Philadelphia, Pa., and HUBERT A. ROYSTER, Raleigh, N. C.

The Surgical Treatment of Perforation of the Bowel in Typhoid Fever.—By W. W. Keen, M. D., L. L. D., of Philadelphia (*The Philadelphia Medical Journal*, Nov. 4th, '99).—In this paper, read before the N. Y. State Medical Association, the author first discusses the question, "Shall we operate at all?" and answers it, emphatically in the affirmative. Early in '98 he had collected 83 cases, operated upon for this condition, and found a recovery rate of 19.3 per cent. Since then he has added to the list 67 cases with a recovery rate of 26.9 per cent. Combining these, the rate of recovery is found to be 22.7 per cent. Comparison is made to Murchison's table of perforations which were not operated upon, and the recovery rate here is 5 per cent. These figures answer the question of the advisability of operation. Of the whole number of 150 reported cases, 90 were reported by American surgeons, 21 by British and 15 by Russian surgeons. The next question discussed is, "In what cases shall we operate?" and he says in all, unless recovery is evidently hopeless, and then calls attention to a case operated upon three times for perforation by Firmey with recovery. Between the ages of 15 and 25 years is the most unfavorable time to operate, the most favorable being over 25 and, especially, under 15 years. In the cases operated upon during the second and third weeks of the disease the recovery rate was 16 per cent., three times greater than in the cases not operated upon, and in the fourth week this recovery rate is nearly doubled.

The third question is, "When shall we operate?" The author has found in analysing his collected cases that the recovery rate was much greater in the cases where operation was done between the 12th and 24th hour after perforation, but does not recommend waiting twelve hours to operate after a diagnosis is made, unless the patient is in shock. The author is plainly in favor of not operating immediately after the perforation, when the patient is generally suffering from severe shock. Cushing has proposed operation in the perforative stage, but the difficulty here lies in making a diagnosis. As the question of diagnosis, even after perforation has taken place, is often a difficult one, it is recommended that the physician call a surgeon in consultation as soon as there arises any symptom indicative of perforation, so that the surgeon may choose his time for operation, just as in cases of appendicitis.

The fourth question discussed is, "How shall we operate?" Keen considers Cushing's method of operating under cocain anæsthesia the most important improvement made in the technique in the past two years. The incision is best made in the right linea semi-lunaris, or through the right rectus muscle. The ulcer when found is then turned in by the use of

Halsted's mattress suture, without making any attempt to pare the edges of the ulcer. An extensive ulcer or two adjacent ulcers may make closure impossible and render resection necessary. In seven cases of resection two recovered. Any points showing a tendency to perforate should also be sutured as a preventive measure. He lays great stress upon the necessary cleansing of the peritoneal cavity with salt solution. The question of drainage will have to be decided by the condition of the peritoneal cavity at time of closure. Since the publication of his book, Keen has changed his view regarding the advisability of repeated operations, as several cases have been saved by a second and even a third operation.

Conclusions.—1. "The surgeon should be called in consultation the moment that any abdominal symptoms indicative of possible perforation are observed."

2. "If it be possible to determine the existence of the preperforation stage, exploratory operation should be done under cocain-anesthesia before perforation, shock, and sepsis have occurred."

3. "After perforation has occurred, operation should be done at the earliest possible moment, provided,

4. "That we wait till the primary shock, if any be present, has subsided."

5. "In a case of suspected but doubtful perforation, a small exploratory opening should be made under cocain to determine the existence of a perforation, and if hospital facilities for blood-count and for immediate bacteriological observation exist, their aid should be invoked."

6. "The operation should be done quickly, but thoroughly, and in accordance with the technique already indicated."

7. "The profession at large must be aroused to the possibility of a cure in nearly, if not quite, one-third of the cases of perforation, provided speedy surgical aid is invoked."

Some remarks on the symptoms of Broncocele and the Results of Operative Treatment, by Francis J. Shepherd, M. D., of Montreal (Annals of Surgery, November, 1899).—Although goitre may involve both lobes of the thyroid gland, it is usually confined to one; especially is this true of cases met with in this country. The growth is usually encysted, cysts being multiple or single and contents solid or semi-solid. In the rarer interstitial variety the gland is uniformly enlarged, occurs chiefly in girls at puberty, generally disappearing in a few months. The symptoms of encysted solid forms of goitre resemble those of Graves's disease, shortness of breath on exertion, excitability, nervousness and sometimes tachycardia, and are due to an excessive amount to thyroid tissue, and partly to pressure. In myxœdema, where there is absence or loss of thyroid tissue the symptoms are the opposite of these, namely, dullness, stupid expression of face, slow pulse, low temperature, sleepiness, etc. The author maintains that the symptoms of Graves's disease, or exophthalmic goitre, are the result of too much thyroid tissue, and that the severity of the symptoms increase pari

passu with the enlargement of the gland. In corroboration of this idea he refers to many cases operated upon and either cured or benefited by the removal of a large part of the gland. That pressure alone is not responsible for this set of symptoms is proved by his experience that when the cyst contents are fluid and not solid the symptoms are not present. In true Graves's disease, the enlargement of the gland not being localized and encysted, operation does not offer a great deal of hope, and the operation is not without danger, which, however, is largely due to the anæsthetic. Local anæsthesia is to be used always in these cases, and even then the operation is dangerous, Kocher losing two out of fifteen cases.

It is the author's custom to recommend operation, in all rapidly growing tumors of the thyroid, especially if they be of the solid form, and if there be dyspnoea the operation becomes urgent.

Operative Procedures.—In simple cysts, when single, enucleation is to be practised, incise the gland until the blueish-white capsule of the cyst is reached. The author recommends evacuating the contents after cyst is exposed, as it enables the operator to remove it through a smaller opening in the gland itself. Enucleation is much more difficult in the solid forms, as the vascularity is much greater. Even in these cases he opens the cyst and removes a portion of it before enucleating it. In the interstitial cases and the true vascular thyroid of Graves's disease, in malignant disease, or where there are many small cysts, or where the growth is very large, the gland should be excised. In Graves's disease and interstitial cases only one lobe is excised. In the operation of excision, the incision is made along the inner border of the sterno-mastoid down nearly to the sternum and then carried transversely inwards as far as necessary. The most important step is the free opening of the capsule of the gland; when this is done, the gland can readily be delivered and the vessels tied. The superior thyroid should be first tied, then the inferior thyroid, and then the recurrent laryngeal nerve looked for and carefully separated from the gland. The author once divided the nerve, sutured it, and obtained a partial recovery of function.

After-Treatment.—When enucleation is practised the oozing is controlled by packing, which is removed in two days. Other cases are drained for 24 hours.

Advantages of enucleation are, ease of accomplishment, absence of risk of myxœdema, and the safety of the recurrent laryngeal nerve. The disadvantages are, the chance of recurrence and the oozing. In nearly fifty enucleations the author has had two recurrences; one, however was on the opposite side. He has operated on three malignant cases. All died subsequently of recurrence in the lungs. The gland is usually enlarged for years before becoming malignant.

J. H. G.

Sudden Death After Hysterectomy from Congenital Cyst of the Brain. Hunter Rabb (*Cleveland Journal of Medicine*, Sept. '99), reports a case of complete prolapse of the uterus for which he removed the organ by the vagina. The patient exhibited a normal convalescence and was considered

to be entirely over the operative procedures, when on the seventeenth day, while sitting up in bed eating supper, she suddenly became unconscious and died shortly afterward. The necropsy showed a cyst at the base of the brain, between the pia arachnoid and the brain substance, and in direct connection with the fourth ventricle. As to other organs the autopsy was negative, save for a small circumscribed stitch abscess in the line of vaginal suture. It is a matter of great satisfaction to the surgeon, the writer remarks, to know not only from the clinical picture, but also from the results of a carefully conducted necropsy, that death has resulted from some cause totally unconnected with the operation.

H. A. R.

The Significance of Laceration of the Cervix Uteri.—Pantzer (*Memphis Lancet*) summarizes his paper as follows: Cervical lacerations without complications have little significance. Often the cervical laceration is complicated with disease in the adjoining structures, and the collateral conditions are responsible for the suffering. * * * Cervical lacerations attain significance as such when, firstly, in the recent state they give rise to an infection which spreads to adjoining structures; and, secondly, in the remote state, when a pathogenic, notably a gonorrhœal infection, of the tear occurs. Even in these cases a relatively small per cent. attain a degree of significance calling for operative recourse.

H. A. R.

Treatment of Tapeworm by Injection of Protruding Part With Morphine.—(Dr. J. W. Kime in *Medicine*).—It is very common thing for the parasite to drop down into the lower bowel and reattach itself, with the result that the head and upper portion of the body is retained. In two cases where only a portion of the worm was protruded a ligature was applied to the parasite about three inches below the patient and a half grain of morphine then injected into the upper portion. The portion below the ligature was then cut off and the protruding part passed into the rectum and allowed to remain about ten minutes, when an enema was given with the result that the entire parasite was passed motionless and apparently dead. Without previous preparation, except that the patient takes no breakfast, he is given, about 9 a. m., a dose of infusion of pomegranate, or what is far better, of tannate of pelletierine, with one or two drops of croton oil. The patient should then be kept under the supervision of the physician for two or three hours when movements of the bowels will most probably occur. If only a part of the worm protrudes, the retained portion should be injected with morphine as described above.

The Teaching of Legal Medicine.—The time is not far distant when progressive medical colleges will add the subject of legal medicine to their courses. Medical jurisprudence, it is true, is taught in almost all colleges, but legal medicine is not; and by legal medicine is meant that particular study of the dead body which deals with wounds, and the manner and method of their infliction, and the time of death; the length of time a body has been in water, not by guess-work, but gauged by actual and visible conditions. It also deals with all legal matters of a purely criminal character. Deplorable, yet true, is the fact that there are few physicians who can do more than guess at many of the conditions which arise in a case of homicide.

The ordinary detective can do that, and in the larger cities where the detectives are men of wide experience, they are, as a rule, infinitely better guessers than the average physician.

The trade-marks of murder and suicide are easily recognizable to the physician who has made a study of legal medicine. Such a man will be able to say positively that the rope was placed about the neck before or after death, where a body is found hanging as if in suicide, and where murder is suspected.

A recent case, in one of our inland cities of importance, will illustrate the wide range of guesses, and the advantage of a knowledge of legal medicine. A body had been found, partially dismembered and packed in a box, which was floating in the water of a canal. There was no question as to how the man had met his death. The cause of death, stab wounds in the chest, was apparent. A number of physicians examined the body, and there were nearly as many opinions regarding the length of time the man had been dead in the water as there were physicians. The guesses ranged from two days to two weeks.

A visitor identified the dead body. But the man he named had been seen alive within two days, the shortest time any of the physicians had guessed the body had been in the water.

Then came a physician who had studied legal medicine. He examined the body and declared it had not been in the water twenty-four hours. He had post-mortem conditions to go by and he explained them. The mystery was later cleared up, and it was shown that the body had been placed in the water not more than twelve hours before it was found. There are arising constantly cases in which medical opinion is sought to aid in unraveling the tangled skein of a murder mystery. In cases of this character the value of expert evidence is apparent, but the evidence should be scientifically expert—that of a specialist—beyond question, and not merely a haphazard guess, which is not susceptible of logical explanation.

Medical colleges graduate men and certify them as well-qualified to practise medicine, yet a very small per cent. of these recent graduates could examine a dead body and confidently explain how and when death came. And when one considers that in many instances the life of a human being hangs in the balance, to be swayed up or down by a physician's opinion, it is easily understood why lawyers have taken up the study of medicine in its application to criminal law —*American Medical Quarterly*.

Dr. Joseph Price.—In the field of abdominal surgery few men have achieved the distinction of Dr. Joseph Price, of Philadelphia, whose operative work has made him famous.

Dr. Price's personality is an interesting one. He is full of nervous energy and is a tireless worker. His conversation is what might be called breezy, because of its multiplicity of ideas. He is never at a loss for a moment, and is incisive in his every movement. In personal appearance he is rather above the medium height, with hair plentifully besprinkled with gray and a mustache to match. His face is cut on clean lines, not at all full, but extremely pleasant at all times. In conversation the oddity of his features is remarkable; in his work or when he is in deep thought, one can almost see him think.

A casual observer can see at first glance that Dr. Price spends more time in thinking of his work than of what will be the next prevailing style in clothing. That is one of the reasons he has been so successful. His life, his every thought, all his energy, is devoted to his profession.

There are many curious little mannerisms about Dr. Price. One will do to illustrate his impressiveness. When he talks and he becomes deeply interested, he emphasises his remarks with an out-pointed index finger. He leans forward slightly at such a time, and looks his hearer directly in the face, and one cannot help thinking: "This man means just what he says." Then, when he reaches a most emphatic remark he places his finger on his cheek. That is a Price mannerism. Then he jumps up at the conclusion of the talk and thrusting his hands into the pockets of his coat walks off with a quick, nervous step. Sympathetic and tender he is with patients, and his visits through the wards and private rooms of his hospital brighten up the inmates wonderfully.

Dr. Price is a frequent contributor to journals of medicine, and is often heard before medical societies.

He was graduated from the University of Pennsylvania in the class of 1877, which gave to the profession, to quote from Dr. James Y. Young's introduction to Dr. A. Sydney Roberts's lectures on orthopedic surgery, "several men who have since distinguished themselves in the different branches of their profession: James M. Andrews, Joseph Price, Matthew N. Cryer, Francis X. Dercum, Henry F. Formad, Thomas H. Fenton, Isaac C. Gable, Herman Haupt, Jr., William Hobson Heath, William C. Hallopeter, Rush S. Huidekoper, Fairfax Irwin, John H. Musser, J. Wilkes O'Neil, Andrew J. Parker, George A. Piersoll."

Price started out to do abdominal sections soon after graduation. He went into the lower sections of Philadelphia and got to work. He operated in tenement attics, and in court-yard hovels and in alley cellars. Later he wrote a paper reporting his cases and his work. His hearers looked askance at him, and wondered at his audacity. Then his report was questioned by some one who didn't know Price. At once he overwhelmed his critic and the doubters with proofs. He showed his cases. He had worked and slaved in by-ways and alleys, and he was famous. Such is Dr. Joseph Price, of Philadelphia, one of the greatest abdominal surgeons of the day—by many considered the greatest. He has, at all events, opened the abdomen for disease and injury more times than any other living surgeon.—*American Medical Quarterly*.

Infective Theory of Rachitis.—S. Mircoli was the first to call attention to the presence of staphylococci and streptococci in the bone marrow of children with rachitis, which has since been confirmed by others, and to assert that the rachitic process is an inflammation, the metaplastic ossification not being specific, as it is noted also in the callus of fractures. He also considers the lesions of the nervous system of an inflammatory nature in this disease, and the hydrocephalus a slow inflammatory process. The child may be infected through the skin, lymphatics, pharynx or alimentary canal, and the infection once established it becomes localized at the points where the biologic activity of early childhood is most intense, that is, in the nervous and osseous systems. The intraventricular pressure enlarges the diameters of the head. A genuine cicatricial tissue is noted with the microscope along the lines of ossification, which prevents the lengthening of the bones, while the inflammatory process at the diaphysis softens them and they curve under the weight of the body. He mentions that Glisson has noted actual epidemics of rachitis, and that von Starck has described a tumefaction of the spleen and of the mesenteric glands during the evolution of this disease.—*Presse Med.*, January 28.—*Jour. Am. Med. Asso.*—*Pennsylvania Medical Journal*.

Eye, Ear, Nose and Throat Department.

By W. H. WAKEFIELD, M. D., Charlotte, N. C.

Therapeutics of Infectious Conjunctivitis.*

By DUDLEY S. REYNOLDS, A. M., M. D., Louisville, Ky.

In Mucu-Purulent Conjunctivitis, the therapeutics are : The frequent and thorough removal of the infecting matter by ablutions or irrigation, with such mild, un-irritating saline antiseptic fluids as will aid in the solution of the coagulated material, so sterilizing the surface of the membrane as to retard the growth of the micro-organism, and at the same time possessing soothing and un-irritating properties. Now, since the terminal nerves in the surface of the conjunctiva are irritated by ablutions which do not contain chloride of sodium, it is manifestly clear this salt should constitute one of the ingredients of any solution to be employed for irrigation. Borate of sodium, in solution, containing a portion of the chloride, with enough carbolic acid to counteract by its anæsthetic effect the mechanical irritation of the frequent and prolonged flowing of the stream from the irrigator over the surface of the membrane, constitutes an all-sufficient and rational plan of treatment. The long-established and irrational practice of attempting to cut short infectious conjunctivitis by the application of caustics may be accounted responsible for nearly all the disastrous sequelæ heretofore ascribed to all the varying forms of infectious conjunctivitis. Cases of muco-purulent conjunctivitis treated by caustic applications lead to entropion, symblepharon, cicatricial opacities of the cornea, more or less deep-seated, and xerosis of both cornea and conjunctiva. In fact, all those deformities, cicatrizations, atrophies, sphacelations and staphyloms formerly attributed to catarrhal and purulent ophthalmia are but the natural results of the caustic treatment employed.

All the infectious or catarrhal types of conjunctivitis are retarded by alkaline lotions ; all of them are intensified and greatly aggravated by stimulating astringents and caustic applications. The treatment by irrigation is the only rational mode of cleansing ; it is easy of application, the means of applying it are universally accessible, and the results are all that could be desired.

In the white staphylococcus forms of infection the irrigation may be done with normal salt solution, or with the following:

Borate of Sodium.....	$\frac{3}{4}$	III
Chloride of Sodium	$\frac{3}{4}$	SS
Water.....	Gal	I
Cryst. Carbolic Acid.....	Gr	XV

The frequency of the irrigation should be regulated by the accumulation of matter on the surface of the conjunctiva. The upper lid being everted, and the irrigating bag being hung twelve inches above the plane of the patient's eye, the nozzle of the irrigator may be held over the bridge of the patient's nose, and the fluid allowed to run over the everted lid, and the inferior retrotarsal surface, into a mass of absorbent cotton, held on the temple. This should be repeated every half hour, and when the matter

*Abstract of paper read to the Mississippi Valley Medical Association at Chicago, Ill., October 6th, 1899.

accumulates enough to exude between the lids, then this interval should be shortened by one-half. If no accumulation of matter appears, the interval may be increased; say, first, to one hour, then to two hours, and so on until there is no necessity for repetition of the irrigation.

In the gonorrhœal type the same plan may be pursued, but a more efficient irrigation may be made by dissolving three ounces of chloride of sodium, eight grains of bichloride of mercury, and one-half drachm of carbolic acid in one gallon of water, which should be filtered before using. With this the eye may be irrigated every ten minutes from the very beginning of the attack; and, if the treatment is commenced before corneal or conjunctival abrasions occur, it is well nigh certain they will not occur afterward. There is always some danger, in the case of infants especially, of injuring the cornea with the nurse's finger nails, and, lest this accident should come from contact with the nozzle of the irrigator, great care should be taken never to allow the instrument to approach nearer than one inch. To perform the irrigation properly, two persons are required. First, having prepared the irrigation, and placed the patient on his back, one person may evert the lid, and hold a mass of absorbent cotton wool on the temple to catch the outcoming discharge, whilst the other person manipulates the irrigator alone.—*Jour. Eye, Ear and Throat Diseases.*

[Reynolds is always interesting and original—but if you will add to his treatment, in cases having a copious muco-purulent or purulent discharge, a few drops two or three times daily of Protargol, 15 to 30 grs. to the oz. of water, you will cut short the attack and not injure the cornea.—W. H. W.]

The Question of Operation on the Injured Eye in Sympathetic Ophthalmitis.—*Sattler.*—Enucleation of an injured eye (particularly in rupture of punctured sclera, wounds of globe with extension to uveal tract) when active sympathetic ophthalmitis has been excited, is not justifiable, for the reason that after a complete subsidence of inflammatory reaction in both eyes the injured eye alone may offer a chance for partial restoration of sight. Enucleation of an injured eye which has excited sympathetic ophthalmia is justifiable, often a measure of necessity, in cases of traumatism by the lodgement in the eye of a foreign body which cannot be localized. If such eyes are a source of continued suffering, the enucleation should be speedily done, but without hope or prospect of influencing the course of the inflammatory disturbance.

Enucleation of the injured eye with the hope that it will influence favorably the progress of sympathetic ophthalmia has no foundation. There is no proof that it has ever arrested or retarded the fatal course once begun. It must, furthermore, be added that there are no reliable data that it is harmful in the sense that it excites a more rapid or disastrous course in the sympathizing eye.

On the Injection of a Weak Sterile Salt Solution Into Collapsed Eyes.—Knapp in the Archives of Ophthalmology recommends the injection of a sterile physiological solution (or any other sterile and indifferent liquid; for instance, boric acid solution) into the eye with a small syringe under the following conditions:

1. When from lack of vitality in old age or any other cause the cornea sinks in so that the eye collapses in such a way as to prevent the wound from closing exactly, a liquid should be injected until the globe has resumed its shape and the lips of the wound apply correctly.

2. Not only remnants of cataracts, but also cholesterin and other heter-

ogeneous substances, including perhaps, some movable foreign bodies, may be syringed out of the eye with impunity and success.

3. When during the extraction of a complicated cataract the fluid vitreous escapes in such a quantity that the eyeball collapses either totally or in such a degree as to prevent the closure of the wound, liquid should be injected to refill the globe and make the wound close.

4. When from an operation or an injury the eye collapses, injection of a sterilized and indifferent liquid may restore the shape of the globe, facilitate the closure of the wound, and ward off infection from entrance of conjunctival secretion into the eye. Eyes whose chances of recovery are unfavorable, may be saved by intra-ocular injection in a greater percentage than if such treatment was omitted.—*Journal Eye, Ear and Throat*.

Injection and Antiseptic Lavage of the Anterior Chamber.—*Fage*. (From the French).—This writer advocates the injection of antiseptic solutions into the anterior chamber in extensive lesions with hypopion, rather than under the conjunctiva. He uses two or three drops of a $\frac{1}{10000}$ solution of cyanide of mercury injected by a Pravaz syringe at the corneal periphery. Care should be exercised in passing the point of the needle not to injure the iris or capsule, or allow an escape of aqueous fluid. Good results, he says, are more rapid and marked than by the sub-conjunctival method and the pain incident not so severe. In the simple ulcers or abscesses sub-conjunctival injection suffices. This method should not exclude other means of disinfection.—*Jour. Eye, Ear and Throat Diseases*.

Surgical and Gynecological Notes.—Charles A. L. Reed (*Internat. Jour. of Surg.* Nov. '99).—Myomectomy should be limited to young women with whom reproduction is an important factor, and in whose uteri there are no apparent remaining foci of fibroid degeneration. It should not be practiced in cases of multinodular myomata, nor in women beyond the menopause, nor in cases presenting hopeless disease of the uterine appendages.

I have seen appendicitis kill within fifteen hours after the initial symptoms. I have seen apparently convalescent cases turn bad and die within a day. I have evacuated large quantities of pus from cases that presented no symptoms of its presence. It were better, therefore, to save practically all cases by early, although sometimes unnecessary, operation than to lose twenty-five or more out of a hundred by waiting for "positive indications for interference."

Over ninety per cent. of the deaths from strangulated hernia occur among truss wearers. All injection treatment of hernia is unsurgical and unsafe. I have seen it develop fatal complications. Every uncomplicated case of hernia is safely curable by refined surgical means. It is the duty of practitioners to educate the ruptured to a proper appreciation of these facts.

The removal of hopelessly diseased uterine appendages does not unsex a woman, although the conditions preceding the operation may have destroyed her fecundity. It were foolish to say that all of sexuality consists in the power of reproduction.

Ichthyol in the Treatment of Chronic Bronchitis.—Dr. Le Tanneur (*Bulletin Medical*, January 24th; *Indépendance Médicale*, March 8th) reports having cured cases of many years' standing with ichthyol given internally in daily amounts of not less than half a drachm. He thinks it should be administered in such a form as to reach the intestine without having been freed in the stomach—namely, in gluten capsules.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, DECEMBER 5, 1899.

No. 11

Original Communications.

Gastrostomy for Traumatic Stricture of the Esophagus—Report of Case.*

BY GEORGE BEN JOHNSTON, M. D., Richmond, Va.

Professor of Gynecology and Abdominal Surgery, Medical College of Virginia; Fellow of the American Surgical Association, Etc.

PERHAPS no more pitiable spectacle comes under the eye of the surgeon than an otherwise healthy person slowly perishing from starvation due to traumatic stricture of the esophagus. One has only to glance at the first of the accompanying cuts [Fig. 1] to verify this statement.

The youth, Robert Starling, whom I exhibit to you was referred to me by Dr. E. C. Moore, of Wilson, N. C., July 23, 1899. He resides at Kenly, N. C. Dr. Moore's letter stated it was a case of esophageal stricture which had become impermeable. The following brief history was elicited at the Old Dominion Hospital, into which he was admitted July 23, 1899:

He knows nothing of father or mother, who died when he was young. Health had always been good with exception of the present trouble and a few chills. When about three years old he swallowed concentrated lye. Remembers nothing about suffering at that time, but ever since he can remember he has had to press on esophagus to complete the act of swallowing. He could eat anything at first, but took twice as long as other people. One week before coming to the hospital his throat appeared to close up so he could not swallow except with great difficulty. Continued to get worse until July 20th, when he could take only milk, and that in very small quantities.

On July 24th I examined him in the hospital. It is impossible to describe his wretched appearance, his wasted form, his distressed countenance.

Esophageal bougies of various sizes were employed in succession, descending in calibre until the passage of a filiform urethral bougie was undertaken. In spite of a most careful and painstaking effort, we found that as Dr. Moore wrote me, "nothing would pass." Swallowing had become almost impos-

*Reported at the Tenth Annual Meeting of the Medical Society of Virginia, Richmond, October 24-26, 1899.

sible. A mouthful of fluid could be trickled through the stricture by stroking the neck at this point. It required twelve hours for him to drink a single glassful of milk. Efforts to pass a bougie were repeated on the



Fig. 1.—Dr. Johnston's case of Gastrostomy, on admission to hospital.

twenty-sixth and twenty-eighth of July with no better success than the first. To save the boy from a torturing death by starvation, it was determined to do a gastrostomy on him.

I selected the method of Ssabanajew-Frank, which seemed most suitable in this case. In Dennis' System of Surgery, pages 275-276, Richardson, of Boston, there describes the operation.

"The Ssabanajew-Frank method was so called because it was done in 1890 by Ssabanajew of Odessa and by Frank in Vienna in 1892. By this method two incisions are made. The first is along the left costal border. The stomach is drawn out of this incision a sufficient distance and fastened there [Fig. 2]. A second incision is made through the skin an inch or two

to the left. The tip of the gastric fold is brought under the skin and fastened into this second incision [Fig. 3]. The fistula is made at this point. Mean-

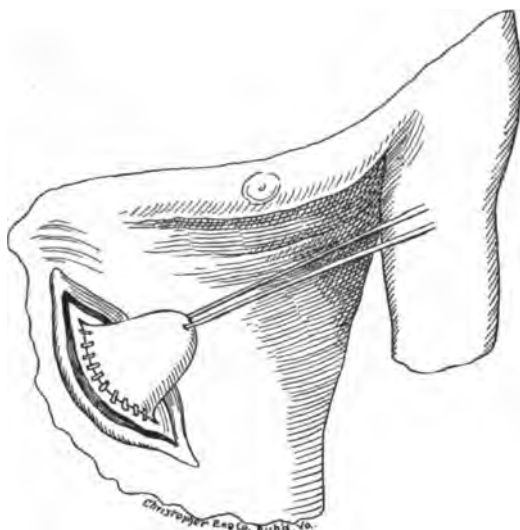


Fig. 2.—Ssabanajew-Frank method of Gastronomy, first stage. (After Richardson, Dennis' System of Surgery.)

while the first incision is closed. The inventors of this operation have reported each four cases, Myer of New York three. This method is inapplicable in cases of contracted stomach. Indeed, in cases of prolonged

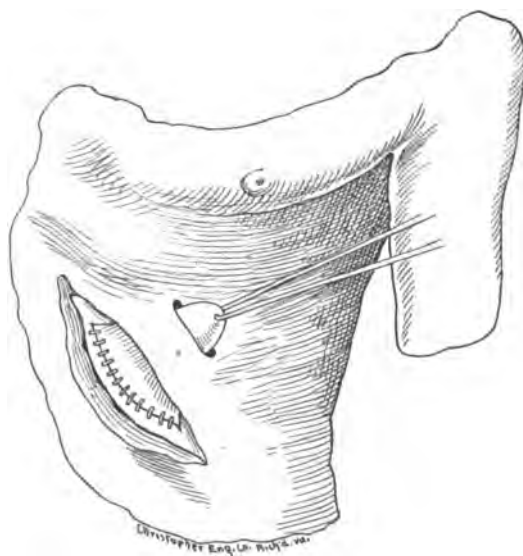


Fig. 3.—Ssabanajew-Frank method of Gastronomy, second stage. (After Richardson, Dennis' System of Surgery.)

starvation the stomach will not infrequently be found so contracted that it is brought with difficulty to almost any ventral incision."

The operation was done under chloroform anesthesia and occupied twenty minutes. The stomach was found normal in size. Dr. Moore was present at the operation. Tube feeding was begun a few hours after operation. At first he was given only peptonized milk. Later, his diet was

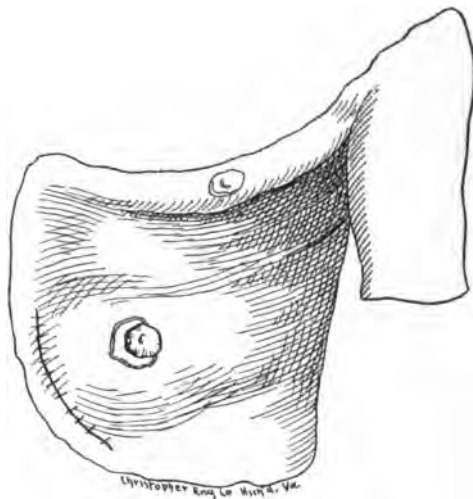


Fig. 4.—Ssabanajew-Frank method of Gastronomy, operation completed. (After Richardson, Dennis' System of Surgery.)

enlarged to broth of various kinds and soft-boiled eggs. As far as practicable all his food was predigested, and he was encouraged to masticate chewing gum and swallow the saliva.

At the end of ten days dilatation was again attempted by my colleague, Dr. John P. Davidson. This has been carried on with considerable success until now a No. 12 bougie will be admitted through the stricture. He swallows with considerable ease, takes promiscuous food and enjoys a ravenous appetite.

His progress after operation was entirely satisfactory, except for the unfortunate infection of the superficial portion of the larger wound which, on this account, had to heal by granulation, and thus marred the cosmetic effort of the procedure.

It will be observed that on the day of operation he weighed only eighty-two (82) pounds, and his appearance was most deplorable. To-day, eighty-six days after, his weight is one hundred and twenty-five (125) pounds, or a gain of forty-three pounds, or at the rate of one-half pound per day. [Fig. 5.]

The case is worthy of report because of the striking result obtained and because it may serve to prove that such strictures can be more efficiently

treated by dilatation when the esophagus is at rest and not subjected to the trials and irritation of difficult swallowing. Besides, the treatment goes on

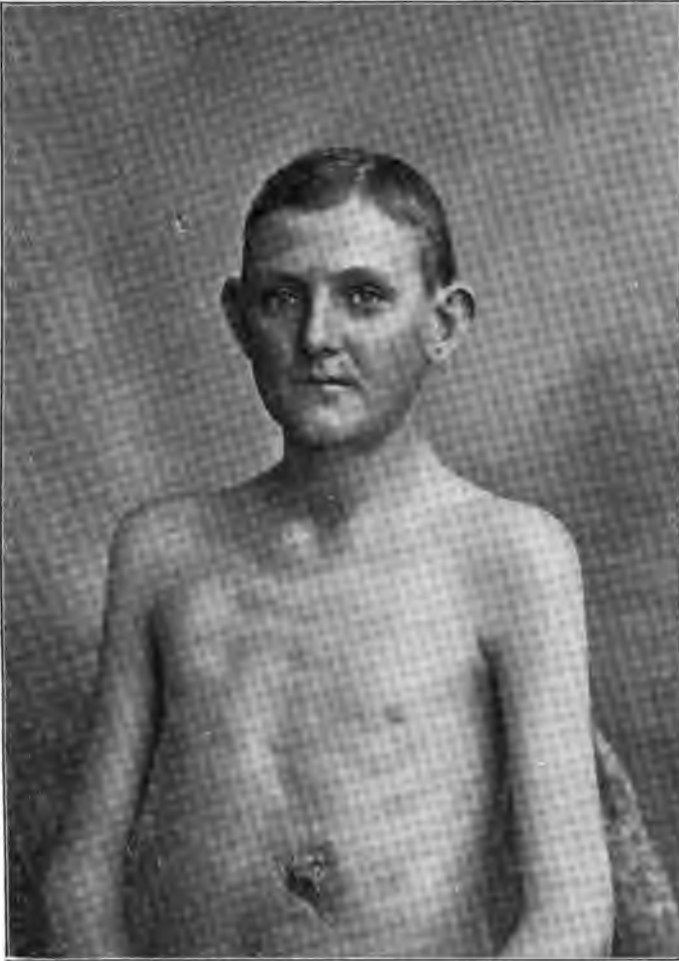


Fig. 5.—Dr. Johnston's case of Gastrostomy, at present time.

under improving health when successful tube feeding has been arranged for.

[The illustrations of this paper were kindly loaned by *The Medical Register*, Richmond, Va.]

407 East Grace Street.

Dr. H. A. Hare is of the opinion that the transfusion of blood in poisoning by illuminating gas is not usually feasible. He could not understand why the use of normal saline solution used in the same manner would not bring about the same results as that of blood, by diluting the poison in the bloodvessels. In some experiments made several years ago by Dr. Edward Martin and himself, they found that the inhalation of oxygen in concentrated form also proved beneficial in such cases.

A Note on the Reasonable Control of Tuberculosis.*

By CARROLL E. EDSON, A. M., M. D., Denver, Colo.

AT the present time no subject in public medicine is attracting more attention than the attempt to control tuberculosis. As a result of the firm establishment of a definite causative agent, and the consequent recognition of the infectiousness of the disease, the hope has naturally risen in the medical profession that we may control and perhaps wipe out the disease. The first result of this activity has been to call the public mind to the infectiousness and danger of the disease.

Any discussion of the causative factors, of the infectiousness, and the desirability of checking the spread of a disease so serious in its menace to life and usefulness is unnecessary before this meeting. In watching the trend of professional opinions expressed upon the subject, and the subsequent but not always logical sequence of public action, one or two points have especially engaged my attention, and I venture to bring them to your mind, not as new knowledge, but rather for the purpose of eliciting an expression of opinion which may be of weight in the present time of suggested legislation.

The present crusade has been preached, as are all such reforms, by the more radical thinkers upon the subject. Their zeal is most laudable and unselfish, but in their enthusiasm over the far reach of vision as to the possibilities resulting from the discovery of a specific cause of the disease there has not always been sufficient attention paid to the necessary accompanying circumstances of vital resistance—"soil"—digestive and nervous capability to overcome the long latency of the disease after implantation before its fructification to death.

Do not misunderstand me. Nothing can be more unfortunate than oversight or disregard of the specific necessity of the tubercle bacillus for the production of tuberculosis or the truth that with its eradication will come cessation of the scourge. But in the practical control of the health of the community these concomitant factors are not negligible and may often be more within our powers of regulation.

The recent action of the State Board of Health of California is a practical expression of what has long been preached by the more enthusiastic advocates of total extinction. As you are probably aware, the board passed a resolution offered by Dr. Crowley of Oakland, "That it take into consideration the propriety of quarantining against human beings and domestic animals having tuberculosis from entering the State."

Much discussion has taken place and a second meeting on October 11th, was held to consider the resolution. There is a strong support in the board and among the press of the advanced views.

Such statements and actions are of especial importance to a community

*Read before the Denver and Arapahoe County Medical Society, October 24, 1899.

like our own, to which so many tuberculous persons resort in the hope of cure and to which till now they have been urged to come.

The chief dread of most persons of communities at the present day is of being behind the times, less ultra scientific and advanced than our neighbors, and any definite legislation by one State or city is likely to be taken up and at least equalled by others, such is our present enthusiasm for over legislation. For this reason it is well for us to consider carefully certain practical facts in what I venture to call the reasonable control of tuberculosis, and certain corresponding fallacies in our present attitude before we are met by the hurry of imminent official action.

The infectiousness of tuberculosis needs no argument, but in much of the popular writing by physicians—and too often in supposedly scientific papers—the attention is directed from the infectious agent—to its, for our purpose, primary source, with the result that the disease is pronounced not distinctly infectious but decidedly contagious, and this without regard to the great practical difference between an absolute unavoidable contagion and one which is truly possible but contingent only, and avoidable. In the first class we may place such diseases as small-pox. Tuberculosis is distinctly in the latter class, its transmission being contingent and avoidable. Now the uneducated public does not distinguish between the two, and when our own profession, in its over enthusiasm to promulgate a proper understanding of the dangers of the disease, states that all persons suffering from tuberculosis are direct menaces to the public, it fails to discriminate in just this line of applied truth. The more radical and inclusive the statements the more readily are they accepted by an untrained public and acted upon.

Let me cite one instance. I quote from a paper upon this subject by Dr. V. Y. Bowditch, of Boston.

A young, sensitive girl, who has undoubted symptoms of tubercular disease, enlarged glands, cough, slight expectoration, containing bacilli, after a prolonged stay at Sharon, was enabled to return to her home and take up some light occupation. Soon after the mother came to me in distress, with the following history: She had found her daughter sitting at a table alone, very pale, with a letter upon the floor at her side. Upon asking her what was troubling her, she only said: "Mamma, I am a leper," and handed her the letter from a member of the family, who had formerly been very kind to her, and to whom the girl had written that she "was so well now that she could soon go to see her." The mother showed me the letter and I read: "On no account whatever must you ever enter my house again; you are a source of danger to everybody." I can let you imagine the effect of such brutal words to a young, delicate girl. A subsequent letter, in answer to the mother's indignant reply, said:

"The highest authorities tell us this is a very infectious disease, and I must think of my child."

Considering for a moment, only the intra professional discussion of the matter, contagion is not judiciously considered.

Taking only pulmonary tuberculosis as an example, until within a few years Cornet's experiments and conclusions have been accepted. It was the dust of dried sputum, carelessly expectorated, from which all infection came.

In 1897-8 were published Fluegge's experiments of collecting the invisible particles of moisture during cough and finding by culture methods the presence of tubercle bacilli. There is at present a far from small number of enthusiasts who find bacilli not only in the moisture of cough from patients with advanced laryngeal or cavity states, but even in the quiet exhalations of the very earliest stages.

Pausing only to comment that there is at least some difference between such cough caught upon sensitive and especially adapted nutrient media and the transmission of the droplets to the respiratory passages of a person sitting apart, and presumably having some vital capacity and reactive resistive tissues, it is to be noted that to some minds this new theory of the mode of transmission has almost wholly superseded Cornet's. Frankel has even gone so far as to seriously argue in a paper in the *Berliner Klinische Wochenschrift* that in all cases so soon as a diagnosis is made of tuberculosis the patient should always, when in company or on the street, wear a close fitting wire mask over the nose and mouth, with a layer of antiseptic gauze to catch the emigrating germs. Statements from a man like Frankel carry weight, but are not unthinkingly to be accepted.

In view of these shifting theories, and recognizing that statements absolutely true of scientific test and animal experimentation may not have the same force when applied to the very different conditions of human life and daily intercourse, it behooves us to be, if not less radical, at least more discriminating in our public utterances. To create public panic by enforcing such measures as muzzling, will drive cases from the sunlight of early recovery to the dark rooms of concealment. To publish statements for the laity dealing only with the infectiousness and transmissibility of the disease and wrongly teach this to be contagiousness, and say nothing about general hygiene, domiciliary and personal, nutrition and outdoor life, will accomplish less than we need of good. Statements made about contagion and remote infection without regard to the stages of the disease, the social habits and surroundings of the patient, fail because they are not true.

Into the question of protection of the individual from self reinfection and the directions necessary to protect his immediate surroundings, I need not enter before this audience. The control of the general spread of the disease in communities now so actively urged, in reality becomes that of individual precautions, but as regards the public ensurance of such precautions two suggestions are now prominently considered. I wish to ask your attention very briefly to them as I have to the previous point.

I. Registration and the required reporting of all cases for public supervision.

The mere registration of cases is of no avail except for the purpose of further supervision. Such supervision, if properly suggested and discrimi-

natingly carried out is of the greatest value, especially in cases of tenements and lodging houses, but is needed quite as much in the way of general sanitary oversight at all times. To place all persons having a tubercular invasion, whether slight or advanced, be the person cleanly or careless, under the eye of public boards of health, (and no law can properly be made to discriminate against the one or the other), is at present hardly a wise proceeding, and will not lead to the enthusiastic attempt to make, and acknowledge when made, the earliest possible diagnosis.

II. The quarantine of tubercular cases, individually or by communities, is proposed, but it is not a new scheme. Italy tried it in the sixteenth century, and the victim of pulmonary consumption became as a leper in the land. One has only to read of those days and shudder at the vision of renewing such inhumanity.

If it should become, as has been suggested, the law that every one afflicted with tuberculosis should be required to remove to a sanitarium or specified region so soon as the diagnosis is made, how soon would that diagnosis be reached? Put it to yourself if the patient were parent, sister or wife.

But the question of danger to our immune community of such continued immigration of tubercular patients, is the issue with which this commentary began, and with it I will close.

It is certainly well to take such precautions as are possible to prevent invasion. It is said that the number of cases contracted here are increasing. So is the population, and with increase of density comes diminished light and air space, crowded factories and the stress of competition. There are more underfed, overworked persons, factors not to be left out of the summing. Take the careful study of reported tuberculosis over the world and the rate of mortality will show a close relation to crowding, overwork, hunger, insufficient clothing, and to the duration of such conditions. Tearing down a tenement to make a park will do more good than quarantine of the residents. The real fallacy, however, of such action as contemplated by the mover of the California resolution, is that in its unavoidable massing of incipient and advanced cases it will defeat the real object of stamping out the disease. We all agree that advanced and hopeless cases will not be benefited and should not be sent away from the contentment of home. This is a much needed lesson to be taught, but a more important one still, is that of early recognition. Our whole fight is to make the profession at large realize the importance of early diagnosis and the necessity of then enforcing restorative methods of life.

When the cavity stage of diagnosis gave way to sputum analysis much was gained, but to-day a large number should be recognized in an earlier incipency than that of breaking down. The closed stage, as it is so well called by Otis, is that in which climate as a nutritive stimulant can accomplish most and should be urged. It is that very stage in which the patient in the vast majority of cases is of no danger to the community. How can a

law quarantining against tuberculosis differentiate? At what stage should the law exclude? Is the position logical to urge the recognition of the disease before it becomes dangerous, and then cry out, *Avaunt!*

Much more is to be gained by a calm, untterrifying statement of how the disease is infective and transmissible and how so far only it is contagious, by an united effort to impress not the people with fear, but the profession with the beginning of wisdom, and by the arrest of all the incipient and latent cases we can find, rater than the branding and incarceration of those who have already become hopelessly ill.

The Alexander Operation in Retro-deviations of the Uterus.*

By HUGH M. TAYLOR, M. D., Richmond, Va.

Professor Practical Surgery, Univerity College of Medicine, Richmond, Va.; Surgeon to Virginia Hospital, etc.

WHILE we admit that indiscriminate operating is responsible for the sacrifice of many healthy pelvic organs, it is equally true that delay and non-intervention is responsible, in many instances, for gross structural changes, destroyed function and hopeless invalidism. Masterly inactivity in pelvic surgery, as well as in obstetrical practice, has filled many graves. Masterly activity in the treatment of posterior displacements of the uterus as a prevention and curative measure is as potent for good as was the pre-aseptic uterine tinkering for evil. The dirty sound, uterine applicator, bivalvespeculum, etc., have irreparably damaged more tubes and ovaries than have been sacrificed by the pelvic surgeon, even when he was most thoroughly infected by the *furor for operations* of the immediate past.

Intra-peritoneal surgery finds its highest end in operations to prevent the consequences of intra-peritoneal lesions and infections. Preventive surgery is ideal, in that it prevents the consequences of morbid lesions, limits the extent of surgical intervention called for, lessens suffering, attacks the focus of disease while the system is strong, and secures an early and short convalescence, and saves life.

Dr. Chas. A. L. Reed, in a recent paper in the *Association Journal*, writes: "The so-called mechanic doctrine of uterine pathology taught with transient success by Hewitt, in England, was in a measure anticipated by Hodge, of Philadelphia, who devised (1830) a pessary for the correction of retro-displacement. It is to be said for the doctrine of Hodge that it was founded in rational pathology, and for his device that it was the least objectionable of any that has been given by the profession for this purpose. It would doubtless stand to-day as the chief expedient for the correction of these displacements if it were not that its use has been supplanted in the hands of intelligent gynecologists by the vastly more radical and more satisfactory surgical means. Even yet, in the absence of proper operative facilities,

* Read before Richmond Academy of Medicine and Surgery, November 14, 1899.

it is probably the means of bringing more relief to women of this unfortunate class than any other instrument in the hands of the general practitioner."

To say that the Hodge pessary is the "least objectionable" is, in our opinion, but a modest condemnation; and to say, in "the absence of proper operating facilities, it is a useful instrument in the hands of the general practitioner," seems to us questionable, judging from our own experience. It requires more technical skill to adopt a pessary which will accomplish the end designed, than to do any one of the several operations in vogue for correcting the retro-deviation; and moreover, if the general practitioner, into whose hand such cases commonly at first fall, has not the "proper operative facilities" for their treatment, they can always without risk be sent to the specialist.

We have heard good men claim that in many instances the retro-deviation is not a factor in inducing poor health; that this is the exception seems evinced by the strenuous efforts made at present and in the past to ascertain the best means for its relief. It is undoubtedly true that the retro-deviation *per se* is not in all cases a health-destroying condition, and exceptionally we meet with cases which do not seem to call for interference. If, however, we appreciate fully its possible sequence, and grant that the retro-deviation is an active factor in inducing the gross morbid intra-pelvic lesions with which it is credited, we must be convinced of the urgent need for the prompt adoption of some treatment which will correct the displacement, and what is of more importance, will also prevent its consequences.

What are the sequences to be apprehended? As we have said, not the displaced uterus *per se*, but more particularly the morbid changes in the tubes and ovaries brought about by the uterine displacement. The uterus, when under the sacral prominence, carries with it to a greater or less extent the tubes and ovaries, and it is easy to appreciate the occurrence and harm incident to compression of the tubes and ovaries between the enlarged and displaced uterus in front of the rectum and pelvic wall behind. Coughing, sneezing, walking, in fact, any movement conveyed to the pelvic organs, increases this pressure and traumatizes the organs compressed. Relief is also clearly indicated, because when the tubes and ovaries are prolapsed, hyperæmia, hyperplasia, pain and inflammation ensue, and by such changes we have laid the foundation for structural degenerations as well as perturbation of function.

A retro-displaced uterus is imperfectly drained. Vascular stasis and its sequence, enlargement and increased weight ensues, as well as intra-uterine puddling of mucus, etc., endometritis, infection of the uterine mucosa, extension of this infection to the mucosa, of the tubes and subsequent morbid changes in the tubes and ovaries, as a whole, are further sequences. I try to explain to such patients that they should have the displacement corrected, not only because of the immediate relief experienced, but also because postponement of treatment so often leads to irreparable damage to the tubes and ovaries.

An early treatment is the key to success, and has for its mission (a), to prevent trauma of the displaced tubes and ovaries; (b), to restore an obstructed circulation in tubes, ovaries and uterus; (c), to restore an adequate drainage of the uterine canal. In bad retro-deviation the tubes and not the utero-vaginal tract becomes the sewer and the pelvic peritoneum a cess pool. This condition notably gives a select invironment to woman's greatest enemies, the gonococcus, streptococcus, and staphylococcus. An obstructed utero-vaginal drainage is inconsistent with a healthy condition of the uterus, and decomposition of the retained mucus is an inevitable sequence of the retro-deviated uterus.

In this connection, the query is naturally suggested: Is the enlarged uterus, endometritis, salpingitis, and ovaritis due to displacement; or is the displacement a consequence of pre-existing inflammatory changes? We agree with those who regard the displacement as the primary condition, and the secondary changes are, we think, due in a majority of instances to trauma, circulatory defects and imperfect drainage. Many factors may act as exciting causes of retro-deviation, but we understand the predisposing cause or causes about as poorly as we do those inducing nephroptosis, gastroptosis, enteroptosis, etc.

Operative Treatment Versus Vaginal Suport, Rest, etc.—It is not our wish, in the least, to discredit the reports of those who claim to cure such cases by pessaries, by prolonged rest in the recumbent position, by the knee chest posture, by frequently replacing the uterus, and by improving its nutrition and circulation. Such plans of treatment, in our experience, must be continued for a long time. The sum total of pain and inconvenience, and even expense, is much greater than that incident to an operation, and a cure certainly cannot as confidently be promised.

Operative Intervention.—Which one of the several operations in vogue accomplishes the end with the least immediate and remote danger to the patient? Shall we do ventro-fixation (*suspensio uteri*)—shorten the round ligaments within the abdomen, or by a vaginal section, or do an Alexander operation? Should a tyro in surgery hear the surgical treatment of retro-deviations discussed by some of our specialists, he would have a hard time to decide which is the best operation. For some years we did ventro-fixation, but always felt, in spite of its endorsement by many good men, that it was an unsurgical procedure, in that nature never intended the fundus of the uterus to be fixed, even by short bands, in any such position, and in our limited experience, the benefits incident to ventro-fixation have been far from satisfactory. The history of ventro-fixation is that common to every surgical innovation. It counts among good men its warmest advocates, as well as bitter opponents. We even find one set busily anchoring the uterus, while the other unhesitatingly re-opens the abdomen to sever the supposed beneficent anchors, claiming that the pain incident to traction on the suspending bands warrants the operation to sever them.

Our unsatisfactory experience with *suspensio uteri* prompted us in a few

cases to shorten intra-peritoneal the round ligaments. Our experience with this procedure has been too limited to warrant us in either advocating or discouraging its adoption. Observing, however, in doing the Alexander operation, how often the ligament in the inguinal canal is practically no ligament—only a few bands of tissue until the internal abdominal ring is approached—we have felt much safer after transplanting the strong intra-peritoneal portion of the ligament into the inguinal canal. Whether this strong transplanted portion of ligament undergoes atrophy or not we have had no means of ascertaining. Nor do we know if changes in the inguinal portion of the round ligament antedates the retro-deviation. We are inclined to the belief that the retro-deviation stretches the round ligament and induces its thinning and atrophy. It would also be interesting to know why the intra-peritoneal portion of the round ligament does not atrophy as does the inguinal portion.

Advantages and Disadvantages of the Alexander Operation.—Some good men, who oppose the Alexander operation, claim that it is as unsurgical to fasten the uterus immovably in front by newly formed ligaments, or by shortening the round ligaments, as it is to leave it fixed by adhesions posteriorly. As a matter of fact, even if at first the round ligaments are shortened sufficiently to bring the uterus snug up in front, it does not remain immovably fixed. Some stretching of the shortened round ligaments occurs, and uniformly we have found within a few months the uterus sufficiently movable to accommodate the distended bladder.

Post-Operative Hernia.—Another objection to the Alexander operation, which is not infrequently urged, is that it favors post-operative hernia. A deservedly distinguished clinician of New York, whose intra-peritoneal work through the vagina stamps him as a master, upon investigation, found twenty-five cases of hernia in the records of the Hospital for Ruptured and Crippled, which followed the Alexander operation. In what length of time this number of cases occurred, we were not informed. Nor do we know the technique employed in doing the Alexander operation in these cases. Obviously, if the cases date back some years, it is fair to assume that the improved technique of to-day offers fewer chances of hernia—just as we do not compare the results of the operation for the radical cure of hernia now in vogue with those of even a few years ago. Recurrences were then frequent; at the present time they are very infrequent. We have heard another distinguished clinician of New York quoted as saying, if you want a post-operative hernia, do an Alexander operation. This same gentleman counts his successful Bassini operation by the hundreds. Not long since, it was our privilege to witness an Alexander operation by a New York clinician, who emphatically endorses its advantages. Doctor, we asked, do you have many hernias to follow this operation? Did you ever see one? he laconically rejoined. I was glad to be able to tell him I had not seen it occur in a single instance. Wait, he said, and I will show you how absolutely to prevent such an occurrence; and I was much interested in watching him use the

round ligament with which to sew up the incised inguinal tissues. So many of the ablest clinicians in this and other countries count their Alexander operations by the hundreds, and these men are best satisfied by the immediate and permanent benefits from this operation, and with this experience our own is, without an exception, in full accord.

We have never been able to understand why an Alexander operation should predispose to hernia, when a Bassini operation, which is almost identical in its technique, will, in more than 98 per cent. of cases, permanently cure a hernia. Moreover, in a radical operation for hernia, we have a sac to exercise, a mouth to close, a distended inguinal canal to obliterate, and possibly there has been atrophy of tissue, which should fill the canal, and stretching and thinning of its coverings, while in the Alexander operation we have only to replace structures recently incised. Another objection urged against the Alexander operation is that the round ligaments, with the uterus in its normal movable position, are lax, not taut, and do not appear to hold the uterus forward. This is equally true of the other peritoneal folds, whose functions are obviously suspensory ligaments of the uterus. Their mission is only to keep the uterus within certain limits, and this must be so to accommodate distension of rectum, bladder, etc.

We appreciate the fact that the greatest drawback to the Alexander operation is our inability, in many instances, to ascertain, except by opening the abdomen, the exact condition of the tubes, ovaries and uterus as to adhesions and degenerative changes.

In a series of 25 Alexander operations performed within the last two years, we have been misled in two instances. In one, the uterus was adherent to the rectum, and a long meso-rectum and a sacculated rectum permitted the uterus to be lifted up to such an extent that we did not recognize the posterior adhesion. A subsequent celiotomy was necessary to liberate the uterus. In a second case, in which relief incident to the Alexander operation was not satisfactory, a celiotomy disclosed an adherent cystoma of one ovary. This experience prompts us to agree with those who think it good surgery, in all instances, to open the peritoneal cavity at the internal abdominal rings, and thereby ascertain, beyond all question, the exact condition of the pelvic organs. Time and again in stripping back the peritoneal investment of the round ligament, we have torn into the cavity, and in no instance have we had cause to regret it. In three cases recently operated upon, we have purposely stretched the internal abdominal rings for diagnostic purposes. In one instance, we removed a cystoma from the broad ligament, in another a small caseous mass like a tubercular deposit, and in another case we removed one tube and ovary, the subject of irreparable structural change. Of course the internal abdominal ring need not be enlarged to admit a finger to discover the condition of the pelvic organs. With the uterus held up by drawing on the ligaments, we can explore the pelvis with remarkable facility, with more ease, we think, than through a median incision higher up. The disinclination to enlarge the inguinal rings more than is absolutely

necessary probably renders the task of delivering the ovary, etc., more difficult than is usually the case through a longer incision above, but there is no question in my mind that a limited incision of the internal ring will enable us to do efficient intra-pelvic work.

Uniformly we have opened up the full length of the inguinal canal. While we do not object to a long incision, we think an enlarged experience simplifies the operation with all who practice it. Many, we think, who do this operation in accordance with the technique of Edebohl and others, perhaps, like ourselves, wonder at the simplicity of the operation, as performed by Kellogg. Our own experience is in full accord with that common to many of far greater experience, in that the operation is easy of execution, is attended by a mortality which is nil, and remedies, in a most satisfactory manner, morbid conditions existing, and prevents those [reasonably prospective.

SELECTED PAPERS.

The Blood in Diseases of the Cardio-Vascular System.*

By ALFRED STENGEL, M. D., Philadelphia, Pa.

I cannot undertake a thorough discussion of this subject from every point of view, but wish to allude only to some of the more important questions suggested by the study of the blood in cardio-vascular troubles. I may divide the subject into the study of the blood (1) in acute inflammatory lesions, such as endocarditis and acute arteritis; (2) in atheroma and arterial degenerations; (3) in the case of mechanical lesions, such as those of chronic valvular disease.

(1) *Endocarditis*.—In acute endocarditis, either of the benign or malignant type, it is customary to find a rapid reduction in the number of red corpuscles. In severe cases I have found counts of 3,000,000 and even 2,500,000. There is in this no condition peculiar to the lesion, but merely the evidence of general infection. When the acute lesion produces valvular deficiencies or obstruction, the condition of the blood may be complicated by the existence of such valvular disturbances. The leukocytes in acute endocarditis are habitually increased in number, this also being the result of the infectious character of the disease. In one of my cases the differential count of the leukocytes was of interest from the inordinate proportionate of polymorphous cells. In a count of 500 leukocytes 98.5 per cent. were of this description. Bacteriologic examination of the blood is of great importance in acute endocarditis, and may be the means of arriving at a diagnosis in doubtful cases. Various organisms have thus been obtained directly from the circulating blood and have afterward been found in the cardiac vegetations. Among others, the gonococcus is important in this connection. It

*Read before the Pathological Society of Philadelphia, Pa.

has been obtained from the blood in pure cultures in several instances of supposed gonorrhœal endocarditis.

(2) *Atheromatous and Degenerative Conditions of the Vessels.*—The examination of the blood does not often present features of importance. It may be possible in certain instances to discover, from time to time, particles of detritus, fatty matter or other foreign bodies, which have been added to the blood from the lesions of the arteries. Such occurrences, however, are too rare to be of practical value. High grades of anæmia may be present in arterial disease, but I have frequently been struck by the fact that the character of the blood was but moderately altered from the normal, though the appearance of the patients suggested marked anæmia. This may possibly be explained by the changed conditions in the peripheral arterioles.

(3) *The Blood in Valvular Disease.*—A number of investigations have been published regarding the blood in valvular disease of the heart, and most investigators have reported the discovery of a tendency to inspissation with increased number of red corpuscles. This has not, however, been the uniform result, and every one who has made a study of the subject has noted that changes are prone to occur from time to time in any case. This is particularly true of diseases of the mitral valve. It has been shown by Ottolenghi that reduction of blood pressure causes a diminution in the number of red corpuscles of the circulating blood and a dilution of the blood, in consequence of the entrance into the circulation of greater or less quantities of lymph; and it has been found by Grawitz and others that in chronic cardiac diseases, attacks of failing compensation may be marked by such dilution of the blood and reduction in the number of corpuscles. This, however, is not constant. I have myself seen it in very marked degree, but, on the other hand have seen cases in which decided loss of compensation lead to a rapid increase in the number of corpuscles, in one instance amounting to 500,000 per cubic mm. Probably loss of compensation with reduction of blood pressure in itself might have this diluting effect, but the pathologic conditions in individual cases are so apt to be complicated by other elements of importance that uniform results are not to be expected.

In cases of chronic cardiac disease with continuous slight inadequacy of the circulation, an increased number of red corpuscles or polycythemia has been frequently detected and is of very great interest. It is doubtless in some way analagous to the increased number of corpuscles found in the blood of persons residing at high altitudes, and has been so considered by some. The degree of polycythemia may be very slight, but in some, notably in cases of congenital heart disease, the number of red corpuscles may run as high as 8,000,000 per cubic mm. A number of explanations have been offered for this condition. Among others, Grawitz is a recent defender of the theory that disturbance of the distribution of water in the system is an important causal element. He believes that in consequence of the continually reduced blood pressure and vascular dilation there is loss of liquid from the blood, especially through the lungs, and that inspissation of the blood occurs in this

way. I cannot now enter at length into a discussion of the experimental side of this question, but would only note certain objections to this theory. It has been shown that loss of water from the system by evaporation or through liquid discharges, affects the liquids of the body generally rather than the blood alone, and that with the knowledge we have regarding the interchange of liquids between the circulating blood and the tissues, we may reasonably conclude that notable changes in the blood would not ensue from such causes as Grawitz suggests. Further, the rapid fluctuations and the failure of polycythemia to occur in some cases in which all the conditions are present for such evaporation or loss of water as Grawitz maintains, show that the importance of this matter has, to say the least, been overstated. Finally, if the analogy with the conditions of the blood in persons at high altitudes or in experiments on animals subjected to rarefied air be allowed to be sufficiently close to warrant deductions, it might be pointed out that the rapid fluctuations in the number of corpuscles would militate against the belief that loss of water from the system is the important cause.

Another theory, particularly to explain the increased number of corpuscles at high altitudes, is suggested by Koeppel. According to him there is probably a rapid formation of corpuscles by division of existing red corpuscles as he was able to demonstrate experimentally after venesection. It is hardly likely, however, that this theory expresses the real causation of the change in the number of the corpuscles. The fluctuations are too rapid in both directions to warrant this view.

For my own part it has seemed to me that disturbances of the distribution of the corpuscles play a more important role in effecting alterations in the apparent constitution of the blood than investigators have generally been disposed to concede. It has long been known that the number of red corpuscles found in a cubic mm. of blood drawn from the skin is greater in dependent parts of the body than in elevated portions. Some years since I made some investigations of this matter, counting simultaneously the blood of the toe and of the finger held in air. The studies showed that the number of corpuscles in the blood of the toe was uniformly greater than that in the finger, the average excess being as much as eight to ten per cent. The explanation which seems reasonable in such instances is that the serum is more readily propelled against the force of gravity than the heavier corpuscles and that in consequence a greater number of the latter are retained in the circulation of dependent parts. Some support is furnished to this belief by the studies of J. K. Mitchell upon the influence of massage upon the constitution of the blood. His studies show that the number of the blood corpuscles progressively increases after general massage and I agree with him that this is probably due to the introduction into the circulation of considerable numbers of corpuscles which had previously rested in the tissues. Now in chronic cardiac diseases there are elements which would tend to cause a lagging of red cells in the peripheral arterioles or venules. Among these the failing cardiac power is most important. It is not improbable, however,

that evaporation such as Grawitz urges may contribute to the result by a general inspissation of the blood, though it does not seem likely that this element is of more than secondary importance. Another factor has suggested itself to me in the course of some studies of the change occurring in red corpuscles in consequence of congestion. I found that the blood drawn from a finger firmly ligatured until it became deeply cyanosed underwent marked changes. I need not now repeat in detail the changes observed, but desire to call attention to one fact alone, viz., that there was evident increase of the viscosity. This is but one stage or element in the process of progressive degeneration of corpuscles. It occurred to me that a similar change of less pronounced degree, however, might result from general congestion and inadequate oxygenation of the blood. Such a condition could conceivably exercise some influence in deterring the return circulation from the tissues, particularly when the *vis a tergo* is diminished. Another change observable in the corpuscles of congested parts is increase in size, at least it has seemed to me so in the few and rather imperfect tests I have made, by determining the number of corpuscles and the bulk as compared with the serum. A similar increase in size has been described as one of the conditions found in chronic cardiac disease. This also might be an added cause of peripheral corpuscular congestion. It seems to me then that the causes of polycythemia most likely operative in chronic cardiac disease are failing circulation, increased viscosity and possibly increased-size of the red blood corpuscles.

This theory would, to a certain extent, be found compatible with the rapid fluctuations presented by some cases as well as the different behavior in aortic and mitral valvular disease. It has been my experience, as it has been that of others, that the blood in aortic valvular disease, especially aortic regurgitation, is more commonly anæmic than in mitral disease. In aortic regurgitation the dilation of the arterioles may possibly explain this. Given a certain degree of anæmia if the arterioles are widely distributed and the force of the heart rather great, peripheral stasis of the corpuscles would not be likely to occur; while in mitral cases with a similar degree of anæmia but without the arterial dilatation and with less adequate central power, the corpuscles might be arrested at the periphery and the blood might seemingly be of great richness though in reality no better constituted on the whole than in the other instances.

The studies of the solid matters of the blood and of the relation of serum to corpuscles so closely coincide with the results of the counting of the corpuscles, that I need not enter into them at the present time.

The leukocytes in chronic valvular disease are frequently increasing in number, but the degree of leukocytosis is rarely great and the conditions are by no means uniform. The chemical studies of the blood and particularly the studies of the alkalinity and gaseous constituents furnish an inviting field for investigations, but thus far there have been few practical results.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.
Editors and Proprietors.

W. H. WAKEFIELD, M. D.

COLLABORATORS.

H. T. BAHNSON, M. D., Salem, N. C.
J. HOWELL WAY, M. D., Waynesville, N. C.
J. ALLISON HODGES, M. D., Richmond, Va.
S. WESTRY BATTLE, M. D., Asheville, N. C.
GEO. G. THOMAS, M. D., Wilmington, N. C.

R. L. PAYNE, M. D., Norfolk, Va.
H. S. LOTT, M. D., Winston, N. C.
J. W. LONG, M. D., Salisbury, N. C.
H. A. ROYSTER, M. D., Raleigh, N. C.
ALBERT ANDERSON, M. D., Wilson, N. C.

J. P. MONROE, M. D., Davidson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

TYPHOID FEVER EPIDEMIC AT THE STATE NORMAL.

A distressing outbreak of typhoid fever has occurred at the State Normal and Industrial College, at Greensboro, with the result that the school is closed until the 2nd of January, 1900, or until the cause of the outbreak is discovered and the institution replaced in a good sanitary condition. We understand that the first cases of fever occurred early in October, and there have been upwards of one hundred cases to the date of closing the school, the number of inmates of the College being nearly five hundred. This shows a morbidity of over twenty per cent.; but the death rate, so far, has been small, only four cases having proved fatal to the time of this writing. Thirty or forty patients remain at the College under treatment, and while some of these are dangerously sick, it is hoped that the death rate will not be any larger than at present. While the outbreak occurred early in October it was the middle of November before the authorities seemed to realize the true condition of affairs—that they had an epidemic to deal with. Immediately, then, the College was closed and the unaffected students allowed to go to their homes and thus avoid further exposure to the contagion. It is probable that some of these will develop the disease later.

No more serious blow could have been dealt this noble institution which has come to be a pride to the people of the State on account of the excellent work being done by it. For the welfare of the institution it is necessary that the origin of this outbreak be ascertained and removed. This duty devolves upon the State Board of Health, and our great confidence in the zeal and ability of the Board makes us feel sure that no trouble or

expense will be spared to accomplish this. Where the blame shall rest, if any individual blame there be, cannot be determined until those having in charge the investigation of the matter make their report. There is one thing strongly emphasized by this unfortunate occurrence, the importance of annual thorough inspections of all institutions where large numbers of persons are domiciled. We do not mean the too usual perfunctory round-making with a polite superintendent, followed by a flattering report as to the excellent condition of the institution, and the great credit that is due the officials for their excellent management. These inspections should be rigid, matters of conscience and business; they should be made by men who are efficient in such work, and who will search every flaw that it is possible to detect, not for the discomfiture of the officials but for the welfare of the inmates; they should be paid, and paid liberally, for the services of a man capable of doing such important work well, are worth money to himself and to those whom he serves. Experience is a dear but an impressive teacher, and we trust that this occurrence which has been followed by such sad results will work much future good in the other institutions of the kind throughout the State. It is hard however that our lesson must be learned at the expense of a temporary suspension of the work of a great institution and the carrying of suffering and sorrow into so many homes.

Since the above was placed in type, Dr. Albert Anderson, of the State Board of Health, after careful examination of the water from two wells from which water was used for drinking purposes, has reported the presence of the typhoid bacillus in considerable numbers in the water. This renders it quite probable that the source of the disease was the drinking water.

MEDICAL HISTORY OF SIR WALTER SCOTT.

In a recent number of the *New York Medical Journal*, Dr. Roberts Bartholow writes interestingly upon what he calls the "Medical History" of the great Scotch novelist. To medical lovers of Scott, Dr. Bartholow's article will prove worth the reading, not only as affecting one of the most popular authors in the English language, but also because it furnishes a picture of the medical practice of that day. It is perhaps not widely known, for example, as in the case of his contemporary Byron, that Scott was lame in the right leg, a result, as we think is clearly proven by the history which Scott has given of his case of infantile paralysis. It seems that his parents tried every means of cure, regular and irregular, for the relief of the trouble and probably because of a natural robustness of constitution rather than of any special treatment, though in some respects this latter seems to have been sensible, he made such a recovery that his lameness in after life was more of a disfigurement than a disability. In other respects Scott is said to have been physically a very handsome man.

To indulgence in the convivial habits of the hard-drinking age in which

he lived, although never intoxicated, and always a great worker, Dr. Bartholow ascribes the origin of that chain of maladies which finally resulted in a comparatively early death. After middle life Scott began to suffer from what he called attacks of "cramps in the stomach" which were exceedingly painful and lasted at times from 8 to 10 hours. As these attacks were all followed by jaundice and other characteristic symptoms, there can hardly be any doubt that they were the result of the passage of gall stones.

Scott himself gives a picture of the medical treatment in vogue then: "I have been seized with one or two successive crises of my malady, lasting in the utmost anguish from eight to ten hours. If I had not the strength of a team of horses, I could never have fought through it and through the heavy fire of medical artillery, scarcely less exhausting—for bleeding, blistering, calomel, and ipecacuanha have gone on without intermission—while during the agony of spasms, laudanum became necessary in the most liberal doses." Later on, when he suffered from a succession of seizures of an apoplectic character, the fourth of which proved fatal, he was "bled, cupped, and tasted nothing but pulse and water for some weeks." This atiphlogistic regimen which seems to have been effectual in the first instance was hardly calculated to prolong life in a patient already debilitated by previous attacks. At the post-mortem a considerable patch of softening was found in the left corpus striatum. What renders the medical history of Scott the more interesting is that the details of his sickness are put down in his own writings and that of his biographer in such a manner as to render it possible for the medical man of to-day to make a diagnosis with a fair degree of accuracy.

For Constipation.—R. C. Fisher (*Texas Medical News*, August) says that in the treatment of habitual constipation the good derived from cascara sagrada will depend upon the mode of administration; if given as a cathartic and only when necessary to unload the bowel, it fails to accomplish the desired end; but when given in small doses for its tonic effect upon the lower bowel, a much better result may be expected. As the bile is always found deficient in constipation, it becomes necessary to combine some cholagogue with the cascara; the following preparation of corrosive sublimate, cascara sagrada, and strychnine is of value:

R	Corrosive sublimate.....	1½ grain
	Sulphate of strychnine	1 grain
	Distilled water.....	1 ounce
	Fluid extract of cascara sagrada.....	4 ounces
	Glycerin.....sufficient to make.....	8 ounces.

M. S. One teaspoonful, more or less, two or three times a day, to maintain one action from the bowels each day; an initial purge should be given. The patient should be instructed to find the minimum amount necessary to produce one healthy stool each day and then continue this for some time. A certain time in each day must be selected for the evacuation of the bowels.

—*N. Y. Med. Jour.*

Deduction.—Coroner: "Do you wish to prefer a charge against the druggist who made a mistake in the prescription?"

O'Houlihan: "No, sorr. He ain't to blame. Oi troid to rade th' thing mesilf, an' Oi c'udn't make out a wurrd."

Book Reviews.

The Christmas Number of Scribner's Magazine contains several striking novelties in illustration. Harrison Morris's Ballad of "Three Kings" is illustrated by Walter A. Clark's pictures which are as rich in color as an old stained-glass window. A picture story by C. D. Gibson called "The Seven Ages of American Woman," is printed on a delicate tint background, after the manner of old engravings.

The six short stories are of great variety in sentiment and subject—love stories, character studies and eccentric comedies.

Dr. F. A. Cook, who recently returned with the "Belgica" expedition, writes entertainingly of the possibilities of future expeditions to Antarctic regions and Albert White Morse reviews Amenea's past achievements in Antarctic exploration, (Profusely illustrated from Dr. Cook's photographs.)

Augustine Berrell, the English Essayist and member of Parliament, contributes a review of John Wesley as a force in the development of British National life.

E. C. Peixotto, the clever young artist who is abroad for *Scribner's*, contributes the first of a series of drawing and text on picturesque French architecture.

The Cosmopolitan Magazine is the first to exploit the beauties and attractions that are to come at the Paris Exposition. It has secured a notable contribution for its November number from Vance Thompson, who is now in Paris, who has been over the ground especially for "*The Cosmopolitan*," and who is, undoubtedly, the most brilliant of the younger American writers. The article is copiously illustrated. Hon. Chas. A. Towne will contribute a second Paris Exposition article for the December *Cosmopolitan*.

The Physician's Visiting List. P. Blakiston's Son & Co., Philadelphia. This popular list for 1900 has made its appearance and is in keeping with former editions. There is no more neat and convenient list published. It is in various styles for twenty-five or fifty patients a week, in one or two volumes, the monthly form in which the name has to be written only once a month, and the perpetual, which is good for any year. It contains the usual tables and spaces for memoranda.

Manual of Diseases of the Skin—with an analysis of twenty thousand consecutive cases, and a formulary. By L. Duncan Bulkley, A. M., M. D., Physician to the New York Skin and Cancer Hospital, etc., etc. Fourth edition, revised and enlarged. G. P. Putnam's Sons, New York, 1898.

Dr. Bulkley's work is all that the general practitioner needs, and the fact that four editions have been necessary in so short a time is evidence that it is popular. Diseases are briefly but clearly described, while more extended attention has been given to treatment. A useful and convenient formulary is provided in an appendix.

A Text-Book of Materia Medica, Therapeutics, and Pharmacology. By George F. Butler, Ph.G., M. D., Professor of Materia Medica and of Clinical Medicine in the College of Physicians and Surgeons, Chicago; Handsome octavo volume of 860 pages. Illustrated. Cloth, \$4.00 net. Sheep or Half Morocco. \$5.00 net. W. B. Saunders, Publisher, 925 Walnut St., Philadelphia.

The author is to be felicitated upon the fact that the present edition of his work is the third within the space of three years. The appreciation of the profession could not be shown in a more substantial way. The idea of

the writer has been to furnish a clear and concise text-book for the student, as well as a work adapted for permanent reference to the physician. This two-fold object has been accomplished in a highly satisfactory manner.

The author rightly speaks of the frequent want of knowledge among practitioners concerning pharmaceutical matters, the incompatible and synergistic action of drugs upon which their remedial powers so often depend. His conclusion that such information comprises a powerful addition to the resources of the medical man cannot be questioned.

Recognizing that the object in a classification of remedies is, "to facilitate the retention of a vast number of valuable yet isolated facts," he had arranged them in accordance with their therapeutical affinities. There can be no doubt that this classification will be found of great practical utility to the student and possessing fewer drawbacks than is generally the case in the usual divisions and subdivisions of medical agents; none of which in the present state of our knowledge give universal satisfaction.

A chapter on the "Untoward Effects of Drugs" will be found of especial interest. The exhaustive contribution of Prof. C. S. N. Hallberg, Ph. G., on "Weights and Measures," and on "Pharmaceutical Preparations" also adds permanent value to the work. On the whole it is a work of unusual value to the student or practitioner; there is, in our opinion, none better.

The Nervous System and its Constituent Neurones.—Designed for the Use of Practitioners of Medicine and Psychology. By Llewellyn F. Barker, M. B. Formerly Associate Professor of Anatomy in the Johns Hopkins University and Assistant Resident Pathologist to the Johns Hopkins Hospital. With two colored plates and six hundred and seventy-six illustrations in the text. New York. D. Appleton & Co. 1899.

The great advance made during the past few years in the study of the minute anatomy and physiology of the nervous system is sufficient justification, if one were needed, for another general work on this highly important subject.

Section I of this treatise is devoted to the study of the history of the development of the neurone concept. In this section it has not been the author's purpose to give a review of the evolution of the various doctrines held at different times regarding the structure and function of the central and peripheral nervous system, but in order to make clear the phenomenal advance as represented by the ideas which at present prevail, he speaks briefly of the unsatisfactory state of the views which immediately preceded them. Chapter iv, of this section, is a very interesting one, describing the method of vital straining of the nerve elements as introduced by Ehrlich.

Section II is a study of the external morphology of neurones. The author uses the term neurone in its widest sense, including not only the cell body and its protoplasmic processes, but also the axis-cylinder process with all its sub-divisions, collaterals, and terminal ramifications. The author in referring to the myelin sheath, points out that the discovery of the fact that within the brain and spinal cord the axones of neurones destined for different functions receive their myelin sheaths at different periods of developmental history, and its application as a means of analysis of nerve tracts from the basis of Flechsig's embryological methods.

Section III takes up the study of the internal morphology of neurones. It contains a very complete bibliographical review of all that has been done along this line of investigation, designed for those, who from want of time or other reasons might find the bibliographic studies burdensome.

Section IV is devoted to the histogenetic relations of the neurones, and

is exceedingly well written; the descriptions, here given by the author, are drawn largely from the writings and lectures of His.

In Section V the author passes on to the consideration of the neurone as the unit in physiological and pathological processes. The author classifies the considerations brought forward, as follows: (1) Those bearing upon the metabolism of the neurones, (2) those concerning the phenomena of irritability as manifested by the neurones, and (3) those referring to the interdependence of the trophic function and the manifestations of irritability.

In one chapter the author presents in a highly interesting way some of the methods which have been undertaken to investigate the effects of poisonous substances upon the neurones, and a comparison of these with the effects of traumatism.

Section VI is an exhaustive review of the work that has been done in the grouping and chaining together of neurones to form a complete nervous system.

This section should receive the most careful study to be appreciated. A special feature of the book is the splendid illustrations, the author believing that form relations are more easily grasped from the examination of good pictures and models than in any other way, and that one well chosen illustration with a satisfactory legend is often of greater value to the student than many pages of laborious and exact description.

Two handsome lithographic plates appear at the end of the volume, representing some of the neurone systems of the principal motor and sensory conducting paths in the nervous system, and some of the principal conducting paths in the central nervous system.

The author gives due credit to every one who has thrown any light on the subject. A carefully prepared index adds greatly to the usefulness of the work.

The work will be found of inestimable value, both to the specialist and general practitioner. The author's efforts are to be heartily commended, for he has presented to the field of neurology, a most thorough treatise on the minute anatomy and physiology of the nervous system.

The publishers deserve much credit for the excellent style in which the book is finished.

R. L. F.

The Girl Was Alarmed.—At a private exhibition of slight-of-hand, mind-reading, etc., a rosy-faced housemaid who had been in attendance upon the party became greatly interested, and when not otherwise engaged stood in the doorway and watched the tricks performed by the handsome conjurer.

At his request the girl brought in a very thick shawl, which was placed upon the table. One of the audience wrote upon a scrap of paper a number of three figures, which was placed upon the table under the shawl, face up.

The performer fixed his gaze on the shawl for an instant and said:

"The number is 999."

When the party who had placed the number under the shawl pronounced the statement correct, the girl at the doorway gave one terrified look at the wizard, and with a scream she ran down the hall, shouting as she ran:

"What's the good of me clothes? What's the good of me clothes?"—*Practical Medicine.*

Medical News and Items.

Dr. J. V. Hunter of Steel Creek, has moved to Waxhaw.

Small Pox continues to crop out in various parts of our State, the latest outbreak being near Pomona 3 miles West of Greensboro.

The Plague continues in Portugal, two or three deaths daily being reported in Oporto.

Announcement is made that the *Journal of Eye, Ear and Throat Diseases*, published by the medical staff of the Presbyterian Eye, Ear and Throat Charity Hospital, will hereafter appear as a bi-monthly instead of quarterly as heretofore.

Dr. John H. Gibbon, of Philadelphia, has been appointed assistant-surgeon in the National Guard of Pennsylvania, and has been assigned to the Sixth Regiment Infantry.

The New York Association for Improving the Condition of the Poor has issued its report for the year ending September 30. This shows that it has had over 8,000 applications for relief, and has aided 6,000 families with homes in obtaining food, fuel, clothing, rent and transportation. It not only needs money to carry on this work, but cast-off clothing for men, women and children.

The Improvements at the Presbyterian Eye, Ear and Throat Hospital, in Baltimore, have been completed. A two-story dispensary has been erected in the rear. The old dispensary has been turned into wards, which have been furnished by Mrs. Joseph Rieman, in memory of her late husband.

It is proposed to consolidate the medical societies of Baltimore as sections of the Medical and Chirurgical Faculty of Maryland. Another proposition is to unite the county medical societies under this parent society, each paying a small membership fee. Should these plans mature, they would give a very strong organically united profession in Maryland, and would vastly increase the influence and usefulness of the Maryland profession. There is a good prospect of this plan being realized as it is favored by leaders in the profession.

Fake School of Pharmacy. Through an advertisement in a New York newspaper under the title "Male Help Wanted" a fake school of pharmacy has been unearthed. Those who answered this advertisement were assured that by the payment of a moderate tuition fee and some work in the evenings, while pursuing other avocations during the day, it was possible for young men of ordinary intelligence and education to pass the examinations of the Board of Pharmacy, and become licensed pharmacists, thus commanding a salary of \$12 to \$15 a week. The enterprising head of this school, "Professor Novarine" does not appear among the list of graduates from the New York College of Pharmacy, though he claims to be a member of the Alumni Association of that institution. He does not state how he proposes to get around that provision of the law which requires at least four years of practical experience in a pharmacy.

A Label for Doctors.—The trustees of the American Medical Association have adopted an official button with which the members are requested to label themselves. It is of gold, with red, white and blue enamel. In the centre

is a lance-pointed cross, the ends of which point to the word MAMA, which is probably not a term of endearment, but is formed of the initial letters of "Member of the American Medical Association."—*Record*.

A Case of Anthrax.—A 'longshoreman died a few days ago in the Long Island College Hospital of anthrax. He had been engaged in unloading hides from a vessel, and it is supposed that he became infected in that way.

The Southern Surgical and Gynecological Association will hold its Twelfth Annual Meeting at New Orleans, La., Tuesday, Wednesday and Thursday, December 5, 6, and 7, 1899, under the presidency of Dr. Joseph Taber Johnson, of Washington, D. C. The secretary, Dr. William E. B. Davis, of Birmingham, Ala., is preparing an excellent program for the occasion, and the delightful weather prevailing at this season in New Orleans ought to and no doubt will ensure a large attendance.

The Seaboard Medical Association of Virginia and North Carolina has its Third Annual Meeting at Newport News, Va., on the second Thursday in January, 1900.

The Seaboard Medical Association is composed chiefly of practicing physicians in the Eastern part of the above named States, and is not intended in any way to detract from, or to conflict with the respective State societies, but "per contra" to co-operate in any way which may be of mutual benefit.

The general topography and climatic influences being the same, the diseases prevalent in both sections bear close relationship. Hence the papers and discussions are all the more interesting and beneficial to those of the profession who practice in the East. Special mention might be made of the discussion of papers on "Malarial Haemoglobinuria" brought out at the last meeting of the Association at Wilson, N. C., January, 1899, extracts of which were published in the leading journals.

It is expected that the next meeting will surpass all former ones, both in number of papers and discussions, as well as in point of attendance, which will be exceptionally large.

The Executive Committee extend to you a most cordial invitation, and hope that you will certainly attend, and add your name to the ever increasing roster of members—if not already there—and also prepare a paper for the occasion on any professional subject which you may select, sending title of paper either to the President, Dr. Lucien Lofton, 230 North Park Avenue, Norfolk, Va., or to the Secretary, Dr. Jno. C. Rodman, Washington, N. C., not later than December 20th, 1899.

The Committee of Arrangements will secure reduced railroad and hotel rates and provide comfortable accommodations.

JOHN C. RODMAN, M. D., Secretary.

Richmond's New Hospital. Among the many evidences of advance on the part of Richmond within recent years, none gives more substantial testimony to her growth than the announcement that she is now to have a hospital equal in equipment to any in the United States and in size the largest south of Baltimore, with the exception of Charity Hospital, New Orleans.

Some months ago Drs. George Ben Johnston and Ennion G. Williams conceived the idea of erecting a large private hospital in this city. In the discussion of their plans it suggested itself to both of these gentlemen that greater good could be accomplished by enlarging the scope of the enterprise beyond what was originally contemplated. Impressed with this conviction, conference was held with some of the leading capitalists and philanthropists

of this city and the plan laid before them. The idea was enthusiastically received and within a very short time ample subscriptions were secured to ensure the carrying out of the project. Dr. Lewis C. Boshier, who had also contemplated the erection of a private hospital, gave up his plans and merged his interest in the new enterprise.

The successful carrying out of the project being thus assured, the first step taken was the purchase of a site for the hospital. No more ideal location could have been found than the one finally secured—the lots at the southeast corner of Twelfth and Broad streets, now occupied by the Crump and Myers residences. Regarding the site, it is of historic interest to note that many years ago this locality was known as "Doctors' Commons" on account of the number of physicians having their offices in the vicinity.

The charter for the hospital was granted by the Hon. Beverly R. Wellford in the Circuit Court of Richmond, on October 15th. After its acceptance the following officers were elected: President, Mr. R. S. Boshier; Vice-President, Mr. John L. Williams; Secretary, Mr. E. Randolph Williams; Treasurer, Mr. Fred C. Nolting.

As before stated, this hospital will be the largest south of Baltimore, with one exception. There will be about one hundred and fifty beds, including private rooms, small wards for pay patients, and ample accommodations for the indigent sick from all parts of the State. To the lower floor, with entrance on Broad street, will be transferred the City Free Dispensary. There will be at least three operating rooms, including a magnificent amphitheater for clinics.

The attending staff of the hospital will consist of the Faculty of the Medical College of Virginia, an arrangement of mutual advantage to both institutions.

We congratulate our sister State and her capital City. The building of this great hospital is an evidence of her prosperity and enterprise and will result in untold good to suffering humanity.

Marriages.

Dr. Chas. S. Jordan, of Asheville, 1st asst. Surgeon 1st N. C. Vol., and Miss Harriett Baker of Brooklyn, N. Y., were married on November 8th.

Dr. Hy. F. Long, a rising young surgeon of Statesville and Miss Carrie Allison of the same town were married on November 23rd.

Deaths.

Dr. O. P. Gardner, the oldest physician in Shelby, N. C., died at his home on November 2nd. He had been in failing health for the last two or three years and had given up practice.

Dr. Edwin J. Gill died in Laurinburg, Monday, November 27th.

Effect of Bullet Wounds in South Africa.—The *New York Times* says: "Some of the wounds inflicted on the British soldiers are of an extraordinary nature. The Mauser bullet makes a clean perforation of bone and muscle. Soldiers shot through both cheek-bones have lost the sense of smell and taste, but are otherwise quite well. Most of the wounds are in the hands and arms."—*Record*.

Review of Medical and Surgical Progress.

The Advance in Our Knowledge of Typhoid Fever.—In a recent very interesting paper read before the New York Medical Association, Dr. Hermann M. Biggs briefly reviews the advance in our knowledge of typhoid fever. The first great step in the advance was made through the observations and writings of Shattuck, Gerhardt, Bartlett and Flint in this country, and Sir William Jenner in England, which defined the characteristic lesions of typhoid fever and made possible its differentiation from typhus. The second period extends from 1850 to 1880, when the discovery of the typhoid bacillus by Eberth was announced. The third period extends from 1880 to the present time. Until accurate bacteriological investigations had corrected and extended our knowledge, enteric fever seemed a better name for this disease than typhoid fever, as it indicated what seemed to be the essential anatomical lesion of the disease. The involvement of the solitary follicles and patches of Peyer in the ilium and the presence of ulceration in them were essential post-mortem for a diagnosis. Although many observers held the opinion that a typhoid infection might occur without the presence of ulceration, still the proof was wanting. Now, however, there is abundant evidence to show that while the primary localization of the typhoid infection in the lymphatic structures of the small intestine is the usual one, and is present in a very large proportion of all cases, yet the primary infection may be centered in other organs or tissues of the body, or it may take the form of a typhoid bacillus septicemia. It seems probable from our recent knowledge that generally, at some time in the course of typhoid fever the bacilli are present in the circulation in small number. That this is so in the majority of cases is shown by the presence of the bacilli in the rose spots of the typhoid eruption; in the urine during the latter course of the fever, *and sometimes for long periods after the beginning of convalescence*; and finally by the demonstrations of the organisms in the blood in many cases by proper methods of examination.

In regard to the restriction of the disease, a very serious and difficult question confronts the sanitarian. It has been considered sufficient that the discharges from the patient and his soiled linen be immediately and thoroughly disinfected during the continuance of the disease, but even this precaution has been but indifferently carried out by a large proportion of the profession. However, it now becomes evident, from our knowledge that the living organism persists in the urine, in some cases, for long periods after the establishment of convalescence, that the urine of every case of typhoid fever should be, not only systematically disinfected, but that it should be examined at intervals during convalescence, and the case should be kept under observation until it is permanently free from bacilli. That such measures can, at present, be carried into effect is manifestly impossible.

Re-vaccination.—Saint-Yves Menard (*Revue Mensuelle des Maladies de l'Enfance*, March, 1899), gives a table showing the importance of re-vaccination. There is a popular notion that the entire body is renewed every seven years in the young, but that this is not true of elderly people. According to Menard's table, re-vaccination in from six to ten years, 17.6 per cent. of positive results: at ten years, 15 to 18 per cent.; at twenty years, 50 per cent.; at twenty to forty years, 60 per cent.; and from forty to sixty, 74.2 per cent.; from sixty to eighty years, 82.9 per cent.;

and from eighty to one hundred years, 88.5 per cent. These figures show that vaccination immunity gradually disappear with advancing years; that at the end of the first decade nearly one-fifth have lost their acquired immunity, and that this proportion rapidly increases with advancing years. These statistics clearly show that the view that re-vaccination is unnecessary in the aged is incorrect.—*Medicine, Detroit, 1899, v. 685.*

Heart Disease From an Obstetrical Point of View.—(Dr. Wright, *Medical Quarterly*, 1899, Vol. I, No. 2) asks the following question, "Should a woman with valvular cardiac disease be allowed to marry?" He thinks the answer should be yes, with certain exceptions. In naming the exceptional symptoms which should change the answer from yes to no, the author quotes from Hanfield Jones: "If there are any serious symptoms of cardiac disturbance present, or attacks of dyspnea, breathlessness, palpitation on exertion, or hemoptysis, marriage should not be sanctioned." I have for some years entertained the opinion that a young woman having valvular lesions of the heart, who can carry out her social and domestic duties without any serious symptoms of ill health, should not be prevented from marrying, although I freely admit that child-bearing is likely to aggravate the dangers connected with heart disease. The author reports a series of seven cases of serious heart lesions, complicating pregnancy and parturition, death resulting in only one case. It is quite possible that this patient might have been saved if she had been properly nursed in a comfortable home or hospital. With the worst possible surroundings and the poorest kind of nursing she lived six days after delivery. The author's views are summarized as follows:

1. A woman having a heart lesion which is compensated should not be prevented from marrying.
2. Abortion should not be induced on a woman with heart disease unless very serious symptoms are present.
3. Premature labor should seldom or never be induced on account of heart disease.
4. Mitral stenosis is the most serious heart lesion during pregnancy and labor—aortic stenosis comes next—then probably aortic incompetency. Mitral insufficiency is the least serious lesion.
5. Treatment during pregnancy.—Administer the following according to indications: Strychnine, digitalis (or strophanthus), cathartics, nitrite of amyl, nitro-glycerin, and regulate the diet.
6. Treatment during labor: Keep up the action of digitalis (or strophanthus) especially during the first stage. Give strychnine and stimulants if required, and chloroform. As soon as the first stage is completed deliver with the forceps.
7. Watch the patient carefully during the third stage (the most dangerous time) and for some days after.

R. L. F.

Myasitis.—(Editorial, *University Medical Magazine*, October, 1899).—Inflammatory affections of the muscles have received, until recently, comparatively little attention. Without doubt many cases in which pain in the muscles is the chief symptom, and which are often regarded as examples of muscular rheumatism, would be more correctly classified under one of the forms of myasitis. Inflammation of the muscles frequently occur as a sequel to certain infectious disease, especially typhoid fever, influenza and scarlet fever. The lesions in the muscles, excited by the specific fevers, are both degenerative and inflammatory. In pyemia, erysipelas, ulcerative endocar-

dites and gonorrhoea the myasitis may be purulent. Syphilitic myasitis may be manifested as a gumma of the muscle, or as a diffuse process characterized by an overgrowth of fibrous tissue between the muscle fibres, the latter ultimately undergoing degeneration and atrophy.

Apart from those forms of myasitis which are clearly secondary, there is an acute inflammatory affection of the muscles, which appears to be primary. This disease was first described in 1887, independently by Wagner, Hepp and Unvernicht. Since that time about thirty cases of the disease have been reported. The etiology of the affection is obscure; three hypotheses have been advanced, (1) that the disease is due to a specific vegetable parasite; (2) that it is due to an animal parasite; (3) that it is due to a toxin absorbed from the intestinal canal. Three cases reported by Kell, and a case reported by Senator give support to the toxin theory. Kell's cases developed soon after the eating of a fish that was apparently sick when caught, and in Senator's case the disease followed the ingestion of stale-crab-meat.

The disease does not appear to be contagious, and in none of the cases have micro-organisms been found in the blood or muscles.

It may begin gradually or abruptly with headache, malaise and moderate fever. Following these constitutional symptoms a painful swelling of the extremities develops, attended by stiffness of the muscles, tenderness on pressure, edema, and a variable rash, usually erythematous, but occasionally morbilliform, purpuric, or urticarial. Involvement of the intercostal muscles and diaphragm gives rise to dyspnea. Reflexes are not lost; apart from the pain there are no disturbances of sensation. The duration of the disease is from two weeks to two years. Recovery is often protracted.

Another affection described is that of "myasitis ossificans," of which about fifty examples have been recorded. It is characterized by the deposit of osseous material in the connective tissue of the muscles, in the tendons, aponeurosis, and ligaments.

The beginning of the disease is variable, sometimes being altogether chronic; at other times quite acute. The first indication is the appearance of a circumscribed swelling in the muscles, which may or not be painful. At first the tumor has a slightly boggy feeling, but it subsequently becomes firmer, and finally osseous.

Missim describes the condition as follows: The muscles of the back, particularly of the neck, are the most liable to attack. The long muscles of the back may form a single long mass; later, the deltoid, the teres and the pectoralis major may all be involved. As a result the head becomes fixed, possibly to one side; ankylosis of the shoulder-joint, with immobility of the scapulæ and vertebral column may follow. Even the muscles of the upper and fore-arm may be affected with ankylosis of the elbow; similarly the muscles of the lower limbs may be involved from above downwards, especially those on the posterior aspect, with ankylosis of the hips and knees. Lastly, the masseters and pterygoid may succumb, resulting in immobility of the jaw. The appearance of the patient is striking, as he is converted into an immovable block, and it is possible to raise him up as one would a wooden figure by the head. At the same time, the internal functions appear to be unaffected, and there is no alteration in intelligence. The facial muscles appear to escape. The duration extends over many years, and death seems to be due to some inter-current affection, particularly tubercle.

R. L. F.

Functional Cardiac Murmurs.—(Dr. Jacobi, *American Medical Quarterly*, 1899, Vol. I. No. 2) concludes, as follows. 1. The diagnosis of deranged function in any organ is only a makeshift and justifiable only as long as we are ignorant of the physical cause of that derangement. "Functional" is called the heart murmur, the anatomical cause of which we do not know. That is why a skilled diagnostician may recognize fewer functional murmurs than one who will not diagnose a heart disease unless he have all the symptoms, including hypertrophy and dilation.

2. The same disorders of the blood and nervous system in which heart murmurs are observed in the adult, do not cause them in the small infant. In the latter the heart is larger, more robust, and more powerful, and its contractions are more uniform and effective; its two ventricles are equally muscular, or nearly so, and the valves are smaller. Thus the greater frequency of murmurs in the adult is attributable to the physical condition of the heart, and should not be explained by deranged function.

3. Even in the present limitation of our knowledge we should agree to call functional only those murmurs which are temporary, or intermittent, or variable in their character. They are met with in the neurotic and neurasthenic, in the (adult) anemic, sometimes in syncope or in chorea minor, and occasionally in rheumatism. Even here they should be recognized either as myocardial or as neurotic.

R. L. F.

Observations on the Relation of the Thyroid Gland to the Uterus—(Dickson, *St. Louis Courier of Medicine*, Sept., 1899,) in an experience with about two hundred cases, makes the following observations:

Diseases of the thyroid gland are much more common among women than men (6.55 to 1). A direct sympathy between the uterus and thyroid is manifested in many ways, so frequently in fact as to preclude the assumption of mere coincidence. Thus, before the establishment of the function of menstruation, the thyroid gland is quite often found to be in a hyperemic or engorged condition. When menstruation is established this condition of engorgement usually disappears. In the cases in which the thyroid does not resume its normal dimensions, it usually becomes more engorged before each menstrual period, receding in size upon completion of the period, or again there may be an accession in size at each period, which does not entirely disappear.

Enlargement of the thyroid, however, is not always a premonitor of approaching puberty; it is met within children under eight years of age, and in one instance the thyroid had been prominent since birth. Goitre occurring after puberty is frequently associated with amenorrhea; in one case, in which both amenorrhea and goitre proved very obstinate, an infantile uterus was found. Treatment being directed to the amelioration of this condition resulted in the establishment of menstruation and reduction in the size of the thyroid.

In only one case had a diminution in size of a goitre during the menstrual period been noted, a parenchymatous goitre in a multipara. When a patient with an enlarged thyroid becomes pregnant, the gland increases markedly in size with each pregnancy, to become smaller upon or shortly after delivery, although it rarely recedes to its dimensions before pregnancy.

In many cases pregnancy is directly responsible for goitre, which makes its first appearance early after impregnation.

In several cases it has been noticed that while the thyroid gland was undergoing electrical treatment the susceptibility to impregnation has been

markedly increased, and this with patients that had not been pregnant for several years.

The occurrence of the menopause is not always the signal for the recession or disappearance of a goitre; on the contrary, it may increase at this period. In a few cases the goitre has not given rise to any inconvenience until the menopause. A goitre especially manifest after the climacteric should be regarded with suspicion as apt to be malignant in character.

At three periods of life has the thyroid been found most refractory to treatment: before puberty, during pregnancy, and after the menopause.

In treating diseases of the thyroid gland in women it is wise to examine into the condition and habits of the uterus, and to devote some attention to it as well as, if not indeed, instead of the thyroid. Very active measures should be omitted before puberty, during menstruation and pregnancy, while the climacteric is a time for especial suspicion.

R. L. F.

Eye, Ear, Nose and Throat Department.

By W. H. WAKEFIELD, M. D., Charlotte, N. C.

What Not to Do in Acute Conjunctivitis.—Dr. Edward Jackson (*Denver Med. Times*), Oct., '99, says, in part:

First—A mydriatic is not useful in simple acute conjunctivitis, and may do harm, aside from the annoyance to the patient. When a mydriatic is needed in acute conjunctivitis it is always to combat some complication, as corneitis or iritis. Be on the guard against glaucoma in using mydriatics.

Second—Don't prescribe cocaine in conjunctival diseases, as it does no good excepting to afford slight relief from the pain, and its frequent or prolonged use does harm. It may be used to lessen the pain of strong astringent application, but holocain is to be preferred. Twelve years ago the author reported a case in which sight was greatly damaged by the formation of an opacity under cocaine treatment, and other cases of damage from this use of cocaine have since been reported.

Third—Do not poultice the eye. The author has seen many cases in which the eyes have been poulticed for acute conjunctivitis and is of the opinion that the eyes are always the worse for this form of treatment. It matters little of what the poultice be made; scraped potatoe, rotten apple, raw oyster, flaxseed, tea leaves, hot or cold—all are harmful. Tea leaves are used so frequently that "the tea leaf eye" is a well recognized pathological entity.

Fourth—Do not bandage or compress in acute conjunctivitis, as the effect of the bandage is somewhat like that of a poultice. The patient may not seem satisfied without a bandage, but some way of treating him and satisfying him that "all that can be done is being done" without working an injury to him.

Even the ice compress, advised by some authorities, in gonorrheal conjunctivites, the author condemns. He has used it and is not satisfied that it is an agent for good. Its enthusiastic advocates admit that it must be promptly discontinued when involvement of the cornea takes place, and corneal complications are the thing to be dreaded in this disease.

The author summarizes his entire paper as follows: 1. Acute conjunctivitis is not one, but several diseases, the successful therapeutics of which rests on an exact diagnosis. 2. Possible eye strain should be considered in

connection with every case not manifestly infective. 3. For all infective forms the most complete cleanliness of the conjunctival sac is the important measure. 4. Mydriatics or cocaine should not be prescribed for acute conjunctivitis. 5. To secure conjunctival cleanliness, all forms of poultice, bandage, and compress are to be avoided.

Cleansing Solution for the Nasal Passages.—G. Sterling Ryerson—*Canadian Practitioner and Review*, Vol. xxv., No. 2.

The writer finding that Dobell's solution was rather harsh and irritating to the nose, in 1884, devised the following formula, which he has used ever since:

R	Sodæ bicarb,	
	Sodæ biborat,	
	Sodii chlorid.....	aa gr. xxx.
	Sodii salicylat.....	gr. xl.
	Ol. bergamot.....	mij.
	Listerine.....	℥ ss.
	Glycerine.....	℥ i.
	Aq. destil.....	ad ℥ viii.

The above was devised without knowledge of Seiler's solution, and has proved eminently satisfactory. GIBB WISHART.

Adenoid Vegetations with Especial Reference to their Influence Upon the Ear—A. W. Calhoun (*Virginia Medical Semi-Monthly*, August 11, 1899).—The author touches briefly on the well-known facts connected with the morbid anatomy of adenoids and their interference with the respiratory function. He directs attention to two curious circumstances to which attention has not been hitherto directed. These are that children in southern climates do not suffer from adenoids with the same frequency as children in northerly regions, and that the negro is practically exempt from them. He thinks that the seeming increase in the number of cases of adenoids at the present day is because formerly surgeons attributed the symptoms produced by them to hypertrophy of the tonsils, overlooking the great number of instances in which adenoids are associated with the tonsillar hypertrophy. After referring briefly to the various other phenomena resulting from their presence, he proceeds to the consideration of the aural diseases they produce. Deafness in greater or less degree is one of the most prominent, the result sometimes of mechanical obstruction to the entrance of air into the eustachian tubes, sometimes due to an extension of inflammation of them. He thinks they are a frequent cause of suppurative otitis media, pointing out the frequency with which suppuration in the middle ear ceases on the removal of adenoids. This is to be attributed to hyperæmia from rarefaction in the middle ear, leading to hypersecretion, and this in a closed cavity results in pus formation. The article is brief, but original, and full of interest.—*Jour. Eye, Ear and Throat Diseases*.

Remote Results of the Operation for Adenoid Vegetations.—Brindel draws the following conclusions from an analysis of 705 operations performed in Professor Moure's clinic:

1. The reflexes engendered by the presence of adenoid vegetations disappear with the tumor which gives birth to them.
2. Auricular affections of whatever form, consecutive or concomitant to adenoid growths, are greatly benefited by adenotomy.
3. Adenotomy causes at times a swelling of the turbinals; may favor a purulent coryza in some cases, in others provokes the cure of an atrophic coryza, with or without ozæna.
4. In one-half of the patients having vegetations and tonsillar hyper-

trophy, spontaneous retrogression of the latter occurs within a few months after the operation.

5. Recurrences occur in about 1.7 per cent of the cases; these agree with the original vegetations, with which they are histologically identical.—*Jour. Eye, Ear and Throat Diseases.*

The Use of the Menthol-Phenol-Cocaine in Oto-Rhino-Laryngology.—

A. Bonain. From the French Menthol and crystalized carbolic acid form a liquid in which cocaine readily dissolves. The writer uses two formulæ :

- | | | |
|-----------------------------|---|---------|
| 1. Acid carbolic cryst..... | } | aa. 1.0 |
| Menthol..... | | |
| Cocaine hydrochlor..... | | |

Which is anæsthetic.

- | | | |
|-----------------------------|---|----------|
| 2. Acid carbolic cryst..... | } | aa. 0.50 |
| Menthol..... | | |
| Cocaine hydrochlor..... | | |

Which is anæsthetic and caustic.

These solutions meet many indications in the various affections of the ear. In the *nose* the writer has used the solutions in exploratory punctures of the maxillary sinus, in galvano-cauterization of the septum for ulcer or epistaxis, or in the reduction of inflamed tissues; lastly, for anæsthesia of the anterior orifices of the nasal fossæ, a region upon which cocaine has no action; in the latter instance the application should continue eight to ten minutes.

In the *pharynx* the anæsthetic has been used in galvano-cauterization of hypertrophied adenoid tissue in the oro-pharynx and at the base of the tongue; for the latter purpose cocaine is usually inefficient.

In the *larynx* the anæsthetic has been used for galvano-cauterization of the epiglottis and arytenoid eminences, when infiltrated. It has proven most efficacious in combatting the dysphagia of tubercular ulcers of the pharynx and larynx, producing complete anæsthesia, lasting at times for four full days.

The caustic solution has been used for destroying tubercular vegetations; the application should be made over limited areas, and preceded by a mild solution of cocaine, to avoid too much burning.

Publishers' Department.

IN THE ADVERTISING PAGES of this issue will be found that of Wm. R. Warner & Co., which explains to physicians why their Pil. Peristaltic should be prescribed by them. There will be no doubt after a careful study of the formula, but that it is an admirable pill for bilious disorders and their concomitant conditions. They are small, efficacious and effective. Messrs. Warner & Co. advise, "if you would always have uniform results from your prescriptions, specify Warner." The usual result of using Warner & Co's pills would seem to indicate that physicians should take time to specify and get the best. It has been said "that the Warner Pill is the criterion of a perfect pill." And there are many physicians throughout the world who would no doubt bear out this assertion.

SANMETTO IN ANEMIC UNDEVELOPED WOMEN.—I have used Sanmetto with profit in a case of a young woman who was troubled with a very irritable bladder and urethra, caused from an excess of uric acid crystals in the urine. The Sanmetto accomplished what I did not expect. The mammæ had never developed very much, nor the chest and shoulders. She was also quite anemic. I gave her a bottle of Sanmetto with no apparent improvement except toward the last she felt a little more vitality. I then procured another bottle at the drug store here

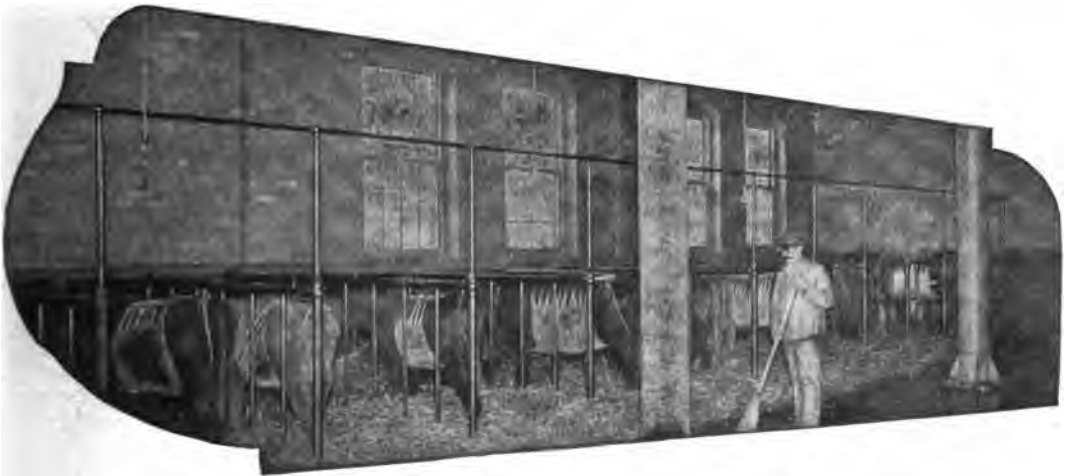
and gave her about half of it. There is now marked improvement in her general health, the mammae are about double the former size; her shoulders and neck are becoming very much more plump, and her chest is so much broader that she can scarcely wear the clothing worn before. She is looking much better. But nothing seems to dissolve the uric acid crystals as yet.

F. E. DOANE, M. D.

Kansas City, Mo.

VACCINE VIRUS.—The vivid descriptions of smallpox epidemics in the pages of the great historians ought to teach us what the loathsome disease must have meant to all mankind before the efficacy of vaccination became generally acknowledged. The principal stock in trade of those who oppose vaccination is borrowed from the ancient and discarded method of "arm to arm" inoculation, syphilis and possibly other diseases being thus communicated from child to child. In the vehement objections to animal vaccine the tubercular germ has been the great bugaboo.

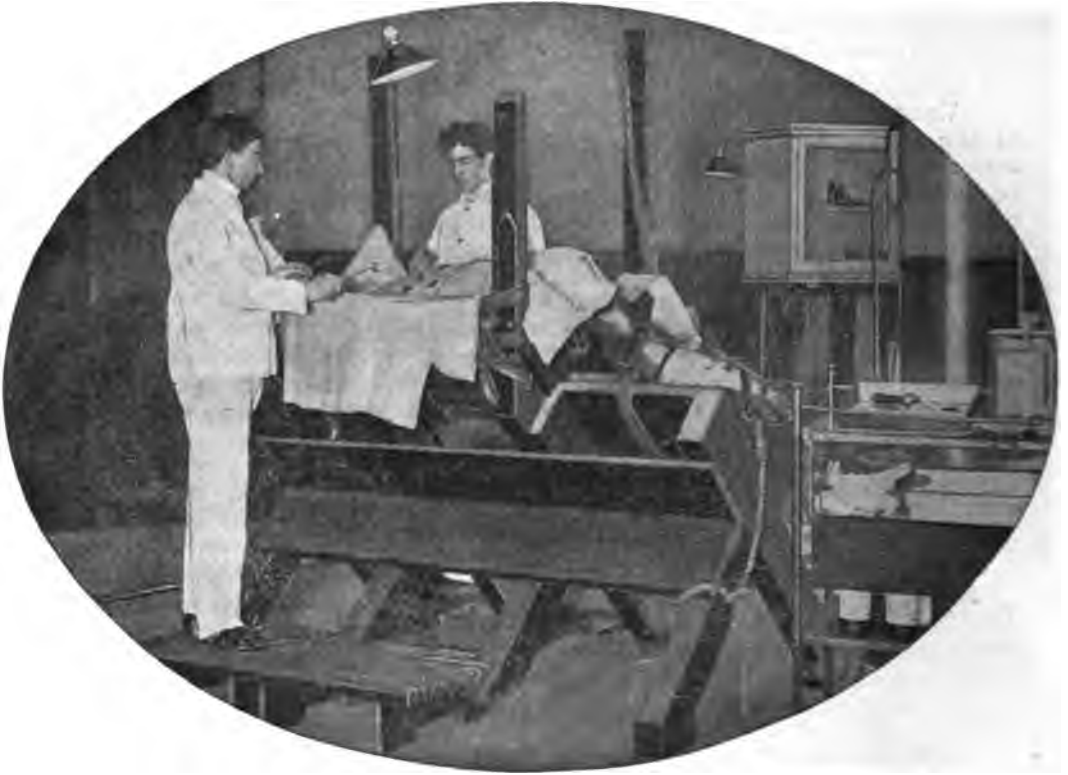
Messrs. Parke, Davis & Co. have in preparation an illustrated article on the propagation of vaccine in which they say, in part, "Our methods of selecting cattle and use of glycerine to kill any possible germs in the vaccine exclude this danger entirely. But to those unfounded and childish grounds of opposition must be added others of more weight and truth. Not without reason have the anti-vaccinationists protested against the ulcerations, abscesses and sloughings with which vaccinators have been only too familiar in the past, thanks to the use of germ-infected "points." * * * * * We use only the



healthy heifer about eighteen months old. The animal is first examined by Dr. E. A. A. Grange (formerly Michigan State Veterinarian), for any evidence of disease, external or internal. The Tuberculin test is applied in every case, and any heifer which exhibits a suspicious rise of temperature is excluded. When the animal is finally pronounced in good health, it is scrubbed from head to foot and * * * the abdominal surface is shaved and is then scrubbed once more with sterilized water and disinfected; and after a final washing with sterilized water, the abdomen is ready for scarification which is quickly performed with sterilized instruments. The "seed" vaccine is applied, rubbed in thoroughly, and permitted to dry. The "field" of operation is then covered with an aseptic and impenetrable cement which effectually excludes germs. Over the cement is placed a layer of absorbent cotton, and over the cotton a protective bandage. The heifers are now taken to the propagating room (see fig. 1 showing one row of stalls), where they are kept for about five days. Men are on hand to collect feces, etc., all excreta being removed from the room immediately.

After about five days the heifer again returns to the operating room. The hoofs are carefully cleaned and the various cleansing operations described above

as preliminary to inoculation are now repeated. The animal is placed in a special frame (fig. 2) and the dressings are removed ; the whole field of operation



is cleansed with sterilized water and * * the external scab is removed and destroyed. The pulp of the vaccine vesicles with exuding serum is now carefully collected * * and placed in sterilized containers, containing glycerine.

The vaccine is now brought to the Biological Laboratory, and is run through sterilized grinders until a homogenous mixture is obtained. The requisite amount of diluent is added and the mixture is shaken for several hours in order to make a perfect emulsion. The vaccine is now examined bacteriologically and physiologically. Every single parcel of our vaccine is tested on heifers before permitted to go on the market."

WINTER COUGHS—GRIPPAL NEUROSES. That codeine had an especially beneficial effect in cases of nervous cough, and that it was capable of controlling excessive coughing in various lung affections, was noted before its true physiological action was understood. Later it was clear that its power as a nerve calmative was due, as Bartholow says to its special action on the pneumogastric nerve. Codeine stands apart from the rest of its group, in that it does not arrest secretion in the respiratory and intestinal tract. In marked contrast is it in this respect to morphine. Morphine dries the mucous membrane of the respiratory tract to such a degree that the condition is often made worse by its use ; while its effect on the intestinal tract is to produce constipation. There are none of these disagreeable effects attending the use of codeine.

The coal-tar products were found to have great power as analgesics and antipyretics long before experiments in the therapeutical laboratory had been conducted to show their exact action. As a result of this laboratory work we know now that some of them are safe, while others are very dangerous. Antikamnia has stood the test of exhaustive trial, both in clinical and regular practice and has been proven free from the usual untoward after-effects which accompany, characterize and

distinguish all other preparations of this class. Therefore Antikamnia and Codeine Tablets afford a very desirable mode of exhibiting these two valuable drugs. The proportions are those most frequently indicated in the various neuroses of the larynx as well as the coughs incident to lung affections, grippal conditions, etc.—*The Laryngoscope*.

POWERS & ANDERSON, Successors to Bartlett, Garvens, of Richmond, Va., who are undoubtedly the leading Surgical Instrument dealers in the South, are offering a special bargain, in our advertising columns, of a neat, compact, complete and thoroughly reliable faradic battery.

There is practically nothing to get out of order with this battery, it lasts for a long time and the renewal of the entire element is only a matter of a few cents, as it is not necessary to send it to the factory for repairs.

Doctors contemplating the purchase of a good, useful faradic battery, which is always ready, will find it to their advantage to write these gentlemen; in fact, they will find it to their advantage to write to them for quotations, descriptive circulars, etc., of anything a physician or surgeon may require.

These gentlemen are anxious to secure the trade and patronage of the Southern doctors, and they assure us that they will do everything in their power to give satisfaction in price, quality of goods or any other particular.

We hope for great things from this house, as we are informed they are about to manufacture nearly everything in their line, and will be better prepared to meet every competitor in the field.

HAY FEVER AND ACUTE CORYZA.—Dr. B. J. Wetherby, of Wilkes-Barre (Medical Council, November, '99), calls attention to a new and very serviceable application of heroin, namely, its use in the treatment of hay fever and coryza. In these conditions he recommends the following formula :

Heroin	1 grain,
Atropia Sulph.	1-25 grain,
Caffeine Cit.	15 grains,
Salophen	75 grains.

M. Ft. Caps No. XV.

In the author's own case of hay fever one capsule was sufficient to relieve the sneezing and the profuse nasal secretion; and four capsules a day kept him perfectly comfortable. Since this favorable experience Dr. Wetherby has prescribed the same treatment in a number of cases of coryza and hay fever with equally positive results in every instance. He believes that by its use we can promise immediate relief to the large army of coryza patients so common at this season of atmospheric changes.

Asthma.—

R Heroin hydrochlor	0.1
Aquæ amygd. amar.....	20.0

M. S. Fifteen to twenty drops t. i. d.

Or :

R Heroin	0.15
Extr. gentian.....	2.0
Pulv. glycyrrh.....	q. s

Ft. pil. No. xxx. S. One pill t. i. d.

—*Floret*.

THE CHARLOTTE OBSERVER,

CHARLOTTE, N. C.

J. P. CALDWELL Editor.

North Carolina's Foremost Newspaper.

Independent and fearless; bigger and more attractive than ever. The most complete telegraphic Press reports in existence. All the news of the world. Complete Daily reports from the State and National Capitals.

SUBSCRIPTION PRICE.

Three Months.....	\$2.00
Six Months	4.00
One Year.....	8.00

THE SEMI-WEEKLY OBSERVER, Published on Tuesdays and Fridays at \$1.00 per year

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIV.

CHARLOTTE, DECEMBER 20, 1899.

No. 12

Original Communications.

Croupous Pneumonia in Children.

By J. HOWELL WAY, M. D., Waynesville, N. C., Examiner in Anatomy North State Board Medical Examiners.

HISTORY.

THE first quarter of the nineteenth century so prolific of advance in all branches of science, had been well spent before the distinction between bronchitis and pneumonia in children had been generally recognized. Pointed out first in 1823 by Leger, yet pneumonia was for many years confounded with pulmonary collapse which condition was described by Jorg in 1835 and called by him atelectasis. The discovery in 1844 by Legendre and Bailly that collapsed lung could by simple inflation be restored to its normal state demonstrated conclusively the essential differences between atelectasis and pulmonary hepatization. In 1851 Rilliet and Barthez definitely established pathological distinctions between lobar and lobular pneumonia. Later the growth of medical science in general and the accumulation of more precise observations on the temperature range, *et cetera*, of pneumonia paved the way for the acceptance of the opinion formulated first in 1872 by Juergensen, and to-day admitted on all hands by our most eminent clinicians, that croupous pneumonia is not a disease of simple inflammation but has its genesis in infection. More recently the work of Klebs, Eberth, Koch, Friedlander, Fränkel, and others with cultures of certain bacteria found in the lungs of patients dead from croupous pneumonia in communicating the disease by inoculation to animals has emphasized this now general belief.

NORMAL ANATOMY.

In a marked degree to the third or fourth year of life, and to a material but lesser degree up to the seventh year, the clinical characteristics and

pathological anatomy of croupous pneumonia are in some respects unlike the disease in adults. Taking for examination (Prudden) the lungs of a five months foetus it is noted that the bronchi provide the bulk of the air-space. Rudimentary air-spaces exist as bud-like dilations on the tips of the branches of the bronchial tree. A loose, delicate connective tissue extending its ramifications between and around the air-spaces completes the remaining bulk of the lung, intervening connective tissues and air-spaces being about equal in extent. As development proceeds the air-spaces, at first mere terminal buds on the bronchial tree, push their way farther and deeper into the loose connective tissue matrix, enlarging, sub-dividing until finally in early adult life they practically occupy all the available space among the branches, and the formerly loose connective tissue is contracted at last into a stroma of thin dense bands. Upon this stroma are laid the snug-fitting epithelial linings of the air-spaces while through it is distributed the vascular nutritive systems of the pulmonary structure. Toward the end of foetal life the air-spaces and connective tissue interspaces are of nearly equal extent. In the first year or two of life the alveolar walls are thick and loosely contain their blood-vessels, and it is not until the third or fourth year that the processes of growth have made the tissues assume their more ripened relations of adult existence. Again, in the newly-born the mucous lining of the bronchial tubes is very loosely connected to the muscular walls. Later the underlying connective tissue gradually binds more closely the mucous membrane to the fibro-muscular tube. During the first two years of life the capacity of the air-cells is relatively much smaller than in the adult and the bronchial tree larger. The blood vessels being more loosely placed in the connective tissue stroma more readily congest, become tortuous and encroach upon the air-spaces, the clinical significance of which is apparent. At birth the air-spaces developed from the terminal bronchi are covered with a continuous layer of flat, nucleated epithelium. In the subsequent growth of the expanding alveolus in adult life it is believed that the number of epithelial cells lining the air-spaces have not increased, but their size is merely enlarged and some of the flattened epithelia lose their nuclei and become expanded to form thin plates called respiratory epithelium. In short, the lung of the infant materially differs from that of the adult in these respects: proportionately the extent of the air-spaces is less than that of the bronchial tubes: the connective tissue stroma exists in greater abundance with greater tendency to cell-proliferation: the sub-mucous connective tissue of the bronchioles is loose and more abundantly supplied and its vessels are more loosely held. The cells lining the air-spaces form a continuous layer and while the air-spaces themselves are smaller, their epithelium proliferates more abundantly. The absorbents perform their functions more slowly, the blood vessels assuming a more important role. In considering tissues so little removed from the embryonal type of cells it is to be remembered that embryonal cells tend to rapid multiplication thus appearing freely in inflammatory products.

PATHOLOGICAL ANATOMY.

Aside from certain minor modifications growing out of the anatomical peculiarities referred to, the morbid anatomy of croupous pneumonia in children does not essentially differ from the results induced by the same disease in adult life. The well-known blood changes are identical. The classic stages of hyperæmia, solidification, and softening or liquefaction are present. Rarely indeed, however, are suppuration and gangrene met with in children. The relative order of frequency with which the different parts of the lung are affected is as follows (Northrup): right apex, left apex, left base, right base. Of course more than one region may be involved at the same time.

ETIOLOGY.

While croupous pneumonia was considered a purely inflammatory affection it was easy enough to ascribe the source of the disease to "cold." The idea of the direct influence of exposure in its causation naturally received much support from its well-known greater prevalence in the winter and early spring months; fully two-thirds of all cases occurring at this season leaving the one-third developing in the summer and autumn months. The accompanying cough was also very suggestive of "cold." However it is a notable fact that pneumonia is not more prevalent in cold than in temperate climates, and it develops in larger proportion of cases without the patients having experienced any known exposure. Formerly it was held that children were practically exempt from lobar pneumonia but more recent opinion (Minot) inclines to the belief that "it is one of the most frequent of the severe diseases" of childhood. Infants at the breast are affected, more frequently children of from one to two years, and still more often children of from four to seven years. Males are apparently more often the subjects of croupous pneumonia than females. Children, like adults, are more liable to a recurrent attack. In this connection it is of interest to record the case of a three-year old boy whom I attended with a typical case of croupous pneumonia in 1887. In 1889, 1892, 1894, and for the fifth time again in 1897 he had a fresh attack of the disorder. Otherwise this boy has enjoyed excellent health and is a growing vigorous lad. Delicate or cachectic children, all things considered, do not seem so liable to contract croupous pneumonia as the more vigorous and healthy. The now generally admitted infectious nature of croupous pneumonia affords a most ready explanation of its not infrequent occurrence in houses with defective sanitation or in individuals exposed to endemic infectious influences. An interesting illustration of the latter occurred within the scope of my personal observation several years ago. During the winter of 1893 a portion of a mill-dam which had been in use for many years was washed away letting off quite a pond of water and exposing to the air quite a little patch of earth which had been water-covered for some years. The owner at once sought to repair the damage and a small force of hands were at once put to work rebuilding the break. Of seven men engaged

at work on the dam five were within a day or two of each other, stricken down with typical croupous pneumonia. The route through which infection enters the system is not definitely determined though the consensus of opinion favors the view of the infectious agent being taken in by inhalation. While it is now a generally accepted theory that croupous pneumonia is a specific infectious disease with local pulmonary lesions produced by the systemic invasion of micro-organisms which multiply after the manner of a ferment, yet bacteriologists do not seem to have quite definitely located the precise form of organism or bacteria which incites the disease. Whether the inciting germ be always *sui generis*, or whether pneumonia can be induced by more than one micro-organism, or whether certain micro-organisms apparently differing in appearance and behavior, but all effective, may not be identical, though in different forms of growth or rather different stages of development, is not determined, but the observations of competent pathologists incline to the belief that the pneumococcus of Fraenkel is the specific germ. A peculiar fact in connection with this is that, according to the same authority, this same micro-organism is normally present and flourishes in the saliva of healthy human beings. It is also said to be frequently associated with cerebro-spinal meningitis—all of which tends to give a measure of support when critically examined, to the view that the “germ theory” of pneumonia, as well as the “germ theory” for disease in general, must while it is accepted as being with our present light probably the best etiological solution of many pathological questions, yet it is not to be held to too tenaciously else outside investigation along other lines be neglected and possible real progress be stifled. The recently expounded theory of Smith (20th Cent. Practice) is suggestive and interesting as possibly foreshadowing a renaissance in medical etiology with a possible re-vamping of some of the older ideas of humoral pathology.

SYMPTOMS.

In children croupous pneumonia is an acute disorder of short duration often tending to a conclusion in five or six days and seldom lasting longer than eight or ten days. Ordinarily it occurs while the patient is in good health as a primary affection. In common with the zymotic class its course usually consists of three stages—the effervescence lasting one or two days; the fastigium running perhaps three days; and the defervescence one or more days. Prodromata such as cough, pain in the side, drowsiness, anorexia, chilliness for a day or so before the attack, may be noted but as a rule the absence of prodromata is as notable a feature of croupous pneumonia in children as it is in adults. In place of the initial rigor so frequently seen in the pneumonia of adults and but rarely in children, the disease is usually ushered in with vomiting or occasionally in the very young with convulsions. Mental apathy with delirium, restlessness, fever, a hot flushed skin, checked secretions, rapid pulse, increased respirations with an elevated temperature rapidly follow. The temperature during the stage of effervescence not infrequently reaches a higher degree than during the fastigium, usually ranging

from 103° to 105° or even higher in serious cases. The length of the fastigium varies from two to five days during which there is little change in the general symptoms. The morning temperature is from 102° to 105° , at times one or more degrees higher. Cough, mild in character, half suppressed and not as a rule urgent, is apt to continue. A deep, rich hued flush (in serious cases it may be deepened to a mahogany hue) is noted on one or both cheeks, usually if the child lies to one side particularly noticeable on the exposed cheek. Labial herpes are often present. Complete loss of appetite persists, water being often the only thing taken willingly. The breathing is hurried and the nostrils usually dilate with each inspiration.

The third stage, defervescence, like the first, is apt to begin suddenly and is more frequently ushered in during the night. A marked fall of temperature from a point as high as the highest to normal or even subnormal, is of common occurrence. Coincidentally an improved condition of mental action, of skin, pulse, secretion, and respiration is noted. The physical signs of croupous pneumonia in children are in the main similar to those manifested in the adult, though the greater frequency with which the apices are affected in the former will make a corresponding difference in their location. Holt makes the very pertinent suggestion that unless the region high in the axilla be carefully examined, not infrequently we shall fail to elicit the customary physical signs. For anatomical reasons fine crepitant rales are less often noted than in adults. True bronchial respiration is very clearly heard during the stage of hepatization; later it is replaced by moist crepitation. At times in the early stage the indications furnished by percussion are of more diagnostic consequence than those of auscultation, but if the pulmonary lesion be separated from the chest wall by a layer of healthy lung tissue a more forcible blow may be necessary to evolve them. The mental state of children is as a rule one of apathy, having little breath to waste in opposition the infant or child is quite tolerant of examination. The pain in the side is not often urgent, at times it is wholly absent. Deep breathing and coughing excite it, for this reason both are so far as possible suppressed. The pain does not always correspond with the seat of the lesion, not infrequently it is referred to the epigastrium. The position in bed varies with the site of localized affection, the decubitus being ordinarily toward the affected side. Complete loss of appetite exists and according to Northrup this symptom has not received the attention it deserves. In older children I have often noted the rust-colored sputa so characteristic of the disease in adults, but of course it is not seen in infants and young children who instinctively swallow the expectoration. The rate of breathing is always increased, and that too as in adults, out of proportion to that of the pulse: the normal ratio of one respiration to four and a half cardiac pulsations being changed to one to two and a half or even nearer. This perverted pulse-respiration ratio is not pathognomonic of croupous pneumonia, for it may occur in other conditions where fever is present with diminished respiratory area as in large pleuritic or pericardial effusions, though in pneumonia it is very significant begin-

ning as it does before other signs are observable and persisting until they have cleared. Nervous symptoms while more often noted in infants are not at all confined to them, at times being so pronounced as to give rise to the suspicion of meningitis—the so-called “cerebral pneumonia” which the older authorities claimed to be always associated with apical lesions. This is however denied by such eminent pædiatrists as Eustace Smith and Holt.

In favorable cases the subsidence of the violent symptoms is usually rapid. Exceptionally the reverse may occur. Secondary croupous pneumonia may complicate other diseases, notably pertussis, bronchitis, measles, enteric fever, diphtheria, *et cetera*; yet pneumonia as an intercurrent or concurrent affection is most usually of the catarrhal or broncho-pneumonic type. Pneumonia itself may also be complicated by intercurrent affections which of course add greatly to its gravity.

DIAGNOSIS.

Ordinarily the diagnosis of croupous pneumonia in children is not difficult. The sudden onset of the disease and its acute character, the hacking suppressed cough, the fremitus of the cry, the increased respiration, the perverted pulse-respiration ratio, the dilated nostrils during inspiration, the characteristic temperature range and the signs elicited by physical examination, are the diagnostic points. Having scant breath to expend in struggling, as a rule the little patient submits to a scrutinizing examination with less resistance than is customary with sick children. In examining sick children it is well to bear in mind the proposition of Eustace Smith that “in any case where the infant screams loudly during the examination of the chest, the probabilities are against the lungs being seriously diseased.” While in certain cases the physical signs may be delayed or absent owing to a centralized location of the pulmonic lesion, the general symptoms are so characteristic as to leave little doubt as to the diagnosis. Meningitis, catarrhal or broncho-pneumonia, or gastro-intestinal catarrh may sometimes need exclusion in a question of diagnosis. Occurring as a primary affection as a rule in previously healthy children, a brief duration, with a definite temperature range, and a localized pulmonic lesion, there should ordinarily be little difficulty in differentiating it from broncho-pneumonia which is so often a secondary affection, is indefinite in its course and temperature range and involves both lungs. In croupous pneumonia rales are heard in the early stage, disappearing after consolidation and reappearing with resolution. In broncho-pneumonia consolidation occurs in different limited areas, comes later, and may not appear at all. “If the pneumonia is primary, and at the apex only, it can be pronounced lobar without hesitation” (Holt). Should marked intestinal irritation with diarrhoea accompany the initial vomiting a case of croupous pneumonia might be mistaken for gastro-intestinal catarrh, but it ought not to be. Marked prominence of nervous symptoms might suggest acute meningitis, but it is to be remembered that acute idiopathic meningitis is one of the rarest of diseases. Meningitis is most often sec-

ondary to middle-ear disease or mastoiditis the recognition of which would be evident.

PROGNOSIS.

Contrary to the popular belief and likewise in contrast with croupous pneumonia in adults, occurring in healthy children it is not only rarely fatal, but has no special tendency to inflict permanent damage to the lung. Being confounded with broncho-pneumonia, a far more serious affection, doubtless accounts for the popular belief in its severity. The previous health of the child, the existence or non-existence of cachexia, and the sanitary and hygienic conditions are important factors for consideration in estimating the probable result of a given case. The circulation and respiration being naturally very rapid in croupous pneumonia in children, rapid pulse or hurried breathing are of less significance than in other affections. A pulse of 150 or respiration of 50 need occasion no special alarm. Increase of the respiration rate beyond fifty would invite a re-examination to ascertain if the disease had extended to another lobe of the lung. A temperature of 105° or above, is not alarming if lasting only for a day or so but if persistent is dangerous. Irregularity in either pulse or breathing is an outward symptom indicating exhaustion. Termination of the fever by lysis rather than crisis is not necessarily unfavorable. Delicate children offer poor resistance to an affection which cripples the function of oxygenation and it is to the influence of the constitutional weaknesses of the organism that the greatest mortality in primary croupous pneumonia is due. When croupous pneumonia occurs as an intercurrent affection in the course of other diseases the prognosis is necessarily grave. Cerebral symptoms, as pronounced delirium or mania, are very alarming but unless associated with meningitis not necessarily fatal.

TREATMENT.

While under intelligent direction much may be done to assuage the severity of the disease, to promote the comfort and to facilitate the recovery of the little patient with croupous pneumonia, the persistent fact should be recognized that there are no specifics for the disease. In the language of an honored former teacher of mine "if you will take care of the patient, gentlemen, the patient will ordinarily take care of the disease." In no disease is it more important to have the advantages of a well-ventilated roomy apartment. Too often sick children are kept in a small room uncertain as to its sufficiency of light and air and with only its being "next to mother" to commend it. Put the child with croupous pneumonia in a bed in one of the best lighted and ventilated rooms of the house and from the outset give the most careful attention to every detail of nursing. Keep its clothing and bedding smoothed out and straight, its pillow comfortably arranged, bathe it with warm water followed by an alcohol sponge, or again if the skin be dry and hot rub it with sweet oil or some pleasant smelling unguent, moisten its dry lips from time to time, encourage it to change its position moving

it about in a way calculated to incite freer breathing in all parts of the lung, give it water often and regularly, also lemonade, orange or grape juice, in short remember the little patient needs a great deal of nursing and not very much putting of drugs into its stomach. This mentioning of little things possibly seems trivial, but after all the successful practice of medicine is in the main made up of attention to the minor details. Ample oxygen with a regular temperature of 65° to 70° F., being secured it is well to add moisture. Dry air tends to thicken and render more tenacious the mucus while moisture promotes both the comfort and the expectoration of the patient. In devising means to render the air moist it is well not to permit the air to become vitiated for steam cannot take the place of oxygen. Milk with lime water or peptonized milk is for the majority of cases the ideal food and one which is most uniformly readily obtainable. Seen in the early stage it is well to initiate the medicinal treatment by the administration of a mercurial. For the feverish irritation many and various of the antipyrets have been suggested—personally I have found the use of warm baths followed by the exhibition of a mixture of tr. aconite in small oft-repeated doses in combination with the old-fashioned spt. etheris nitrosi and liq. ammon. acet., a very satisfactory general plan of treatment at this stage. To this if there is much restlessness fluid Dover's powder may be added with advantage. Where cerebral symptoms are pronounced, chloral hydrate is invaluable, calming the irritated nervous system and also lowering the temperature. Where the respiration is unduly hurried, the cough dry and the expectoration scanty or not at all, hot baths with ipecac wine or syrup give most relief. The time-honored flax seed meal poultice if in the hands of a capable intelligent nurse may be of real service. Without an efficient nurse a close-fitting jacket of cotton batting is to be preferred. Opium in the form of Dover's powder or paregoric may be occasionally needed for relief of pain and cough. The use of the specific antipyretics in doses sufficient to cause a marked lowering of temperature, while affording at times a temptation to many practitioners, is mentioned only to be unhesitatingly condemned. Children bear high temperatures with far less of the rapid prostration so pronounced in the hyperpyrexias of adults. Just before and in the beginning of the stage of resolution strychnia and alcohol are often of undoubted value. This statement as to the undoubted value of alcohol is made with a full appreciation of the fact that the alcohol treatment of disease has been and is very much overdone by many excellent practitioners. Carbonate and muriate of ammonia along with sanguinaria, tolu, prunus virginiana and others of the expectorant class are also useful at this time notwithstanding it is just now the fashion to prate about the passing of the expectorant from the domain of up-to-date practice. Local applications of turpentine, mustard and iodine have each their appropriate place. In convalescence a tonic regimen and measures calculated to build up the system are in order and it is here the therapeutic resources of the physician are frequently put on trial. Quinine, which during the active periods of the disease probably has no appropriate place unless

there be present a malarial element, becomes one of our most valued tonics. Where slight fever persists, a careful examination should always be made for a possible pyothorax. If present aspiration should be resorted to immediately, and while it may need to be repeated it, with appropriate constitutional treatment, is often sufficient to effect a cure without incision and drainage. Croupous pneumonia occurring as an intercurrent malady in the course of other affections is fraught with the gravest possibilities and should receive the freest possible stimulation from its recognition.

Acute Tonsillitis.

By EDWIN GLADMON, M. D., Southern Pines, N. C.

THERE is nothing more common than "sore throat" which is almost equivalent to saying there is nothing more common than tonsillitis. The terms are not exactly synonymous but when this disease is of the acute form, we have as a rule the pharynx and contiguous parts involved.

Acute tonsillitis is usually classified in five varieties, but clinically it may be considered under two heads. Excluding the common infectious diseases we have acute tonsillar inflammation with abscess and without it. As to etiology little need be said, for one reason because little is known. Though in this connection the rheumatic diathesis, however indefinite that term may be, is nearly always a potent factor and should be so considered when outlining treatment.

In the earlier stages ocular inspection gives little information as to which variety we have to treat; that is, we cannot at first determine whether an abscess is or is not likely to follow.

The text books give us as a diagnostic point, the temperature, claiming that in purulent cases it is much higher than in non purulent ones. This is not my experience and no reliance can be placed on this point more especially when dealing with children. Of course if abnormally high temperature persists for several days it would have this indication but other symptoms are then present that are more reliable.

Tonsillitis with abscess is relatively rare compared with tonsillitis without abscess. It should be even more rare. Nearly every case that unaided would eventuate in abscess can be averted if seen at a sufficiently early period. In the treatment of acute tonsillitis a cardinal principle should be the avoidance of every form of local medication in its nature an irritant. The old potash and iron treatment was and is barbarous, and has nothing to recommend it except its antiquity. When patients recover after a treatment of alum, iron, tannin, gallic acid, iodine and similar drugs they get well in spite of the treatment and not because of it, like a man who uses alcohol and tobacco and yet lives a century. When we reflect how exquisitely

tender and sensitive is an inflamed mucous membrane it seems that the kind of treatment indicated is almost self-evident—to soothe and soothe again.

With whatever variety we have to deal the first indication is a clean intestinal tract. This is best accomplished by a mercurial followed by salines. In children in whom the catarrhal and follicular varieties predominate this purgation and aconite is often all that is required. When a wash is indicated something mild like borolyptol or hydrogen peroxide should be used.

There is seldom seen in children another disease when the temperature reaches such a height, or one where it more readily yields to treatment.

With adults more energetic measures are necessary. Bearing in mind the possibility of pus formation, calcium sulphide should be given in grain doses at frequent intervals until all danger from this source has passed. After a thorough cleaning of the intestinal tract, salicylate and benzoate of soda of each five or ten grains, should be given every two or three hours. Essence of pepsin is a pleasant vehicle and with it should be combined a dram of borolyptol to each dose. If pain is severe the coal tar preparations answer fully, and these combined with aconite or gelsemium suffice to control its force.

No benefit is derived from painting the tonsils with astringents; but where follicular exudation is extensive or necrotic membrane present, the application of hydrozone or peroxide is advantageous. Gargles are useful as they can be held in the mouth, and the mild antiseptics answer best for this purpose. To these, alternately, should be added a spray of some fluid petroleum, either plain or combined with menthol. Protonuclein is useful especially where the pharynx is involved. This should also be used as a gargle, the special powder mixed with about three times its bulk of bicarb. soda.

Of the older remedies the only one I have found valuable is guaiac, and this to my mind is but another evidence of the oftentimes rheumatic origin of the disease.

The treatment here outlined systematically followed, will carry all cases through with a minimum of pain, and a minimum of time. When in spite of treatment suppuration seems inevitable incision is indicated at once. There is nothing to gain by delay. A long application of heat to promote softening is entirely unnecessary.

Chronic follicular tonsillitis is very often a factor in causing acute exacerbations. This should of course be cured but its treatment is outside the scope of this paper.

Acute Pneumonia in Children.

By W. L. HARRIS, M. D.

Attending Physician to the Virginia Beach Infant Sanitarium and Resident Physician to the Princess Anne Hotel, Virginia Beach, Va.

CASES of acute pneumonia are divided, from an anatomical point of view, into broncho-pneumonia and lobar-pneumonia.

Broncho-pneumonia is an affection of the lungs characterized by inflammation of the smaller bronchi and alveoli. It includes all cases of so called capillary bronchitis, for it is useless to attempt to separate the two diseases, as there is no case of capillary bronchitis without some inflammation of the adjacent lung tissue which really makes a pneumonia. Broncho-pneumonia is one of the most frequent and fatal of all the diseases of the lungs in children under three years of age.

The disease may be either primary or secondary—if primary it is usually due to the pneumococcus, and in many cases the pneumococcus alone is found. The great majority of cases are secondary and occur as complications or sequences of bronchitis, influenza, scarlet fever, diphtheria, measles, pertussis and gastro-intestinal infection. The secondary cases are due to a variety of causes and there is usually mixed infection, the streptococcus being found in the worse cases, as a rule.

The lesions are irregular in their distribution, and usually occur in both lungs. The course of the inflammation varies in its rapidity, at times attacking a small portion of the lung and again being more diffuse in its onset, and gradually invading larger areas.

The clinical picture presented by broncho-pneumonia is not a constant one. There is no typical course, owing to the many different lesions which commonly occur in the disease, and which by their greater or less severity make its course exceedingly irregular. In so many instances is broncho-pneumonia secondary to some other disease that the symptoms are necessarily modified by those of the initial affection.

The symptoms which characterize a broncho-pneumonia in the ordinary course of the primary disease which it may accompany, is a rapid or gradual rise of temperature, persistent cough, extreme prostration, dyspnea, rapid respiration, quickened pulse, and sometimes cyanosis. Any of these symptoms should suggest a careful and thorough examination of the chest. The physical signs of broncho-pneumonia will vary according to the area and extent of the disease. On percussion we can usually detect dullness over the affected area, but in some cases this is impossible, owing to the small size of the diseased area, and again when the diseased areas are far apart. Bronchial respiration, increased vocal resonance and fremitus can be detected, moist rales of all kinds may be heard.

*Read before the Hospital Medical Society, 1899.

Broncho-pneumonia, in favorable cases, usually terminates within seven to twenty-one days. Many fatal cases last only a few days. The temperature usually ranges from 102° to 105° F., and is not continuous, but rather of a remittent type. Where the temperature drops to normal it is usually a gradual drop, and resolution begins at once, but is usually very slow and patients have to remain in bed for weeks.

The diagnosis of broncho-pneumonia is always a simple matter, especially in the beginning, and care should be taken to differentiate it from tuberculosis, lobar-pneumonia and severe bronchitis.

In the prognosis of broncho-pneumonia many things have to be considered. Age is an important factor. A large majority of the fatal cases occur in the first two years of life. The younger the child the greater the danger. It is very fatal in pertussis and influenza. A persistent high temperature is always grave. In cases lasting over three weeks or more, death is probable and is usually due to exhaustion. Broncho-pneumonia is a serious disease and should be so considered; the mortality in private practice is from ten to thirty per cent., depending upon circumstances, and in institutions it is from thirty to fifty per cent.

The treatment of broncho-pneumonia is essentially that of the disease it complicates. Every effort should be made to sustain the child by good nursing, proper food regularly administered and stimulating and tonic drugs. Strychnia in solution should be given from the start every three or four hours, and later on it may be given oftener if needed. Brandy or whiskey may be given with good effect in the majority of cases. Avoid, so far as possible, the use of opium, ipecac, and all drugs depressing to heart or respiration. Incessant cough and troublesome nervous symptoms may be controlled temporarily by a single dose of codea or phenacetin, but these drugs should be used with great judgment. The temperature does not often require any attention, and it seldom does as much harm as the drugs given for its relief. Hot mustard baths and packs are very efficacious in producing a profuse perspiration and lowering the temperature several degrees. The cold packs to the chest or the cold bath may be used with great benefit to lower the temperature, but these have to be used cautiously as there is such a prejudice among the laity against cold applications of every kind in pneumonia it is often not advisable to use them. Cold to the head is good to allay nervous symptoms. Blisters should never be used in children, but counter irritation of some kind is good in almost all cases. It is preferable to use mustard paste over the chest, allow it to remain for five or ten minutes only and it may be repeated every four or five hours. There is a difference of opinion as to the use of the oiled silk jacket which was so popular a few years ago. It is a question whether it does any good, but it does no special harm and may be used for effect if desired. Poultices are very troublesome and are seldom properly made or properly applied. If properly applied they seem to give good results at times.

In extreme cases where there is cyanosis and short, jerky respiration and

blueness of the nails, the patient requires active and heroic treatment. Hypodermic medication should be resorted to. Strychnia, whiskey, ether and caffein may be given. When the child seems as if it is about to suffocate and large mucus gurgles are heard in its bronchi and throat, every effort should be made to excite coughing so the lungs may be cleared of the obstruction. Ammonia may be given and electricity may be applied, cold douches may excite coughing and respiration.

The second form of pneumonia to be considered is lobar-pneumonia. It is an acute, self limited disease of the lung, running a different course and caused by the *diplococcus pneumoniae*. It is not so common among children as broncho-pneumonia, and under three years of age it is rather rare. Sudden atmospheric changes and exposure to cold seem to render a child more susceptible to the invasion of the organisms that cause the disease.

The pathological condition which is found in lobar-pneumonia is an exudative inflammation which involves progressively the whole of one lobe or of one lung or portions of both. The stages of congestion, red and gray hepatism take place in succession as they do in the adult. It runs its course in from five to nine days.

The symptoms of acute lobar-pneumonia are sudden onset, rapid rise of temperature (to 103° or 104°), rapid pulse, quickened respiration, great prostration, usually cough and pain, but not always. Vomiting and convulsions may also occur in the beginning.

The physical signs are usually well marked except in the first stages of pneumonia. The crepitant rale is the most significant sign in the first stage. There is dullness on precussion, on palpation increased vocal fremitus, vocal resonance is also increased. Bronchial respiration and fine rales may be heard during same stage of the attack. In some cases physical signs are absent for several days, and these are the puzzling ones. According to Holt it is a mistake to regard these as cases of central pneumonia, as out of several hundred autopsies he has never seen a case of central pneumonia. He regards these as occurring at the apex of the lung where it is covered by the shoulder and on the posterior border of the lung close to the vertebral column. It is possible for pneumonia in these two regions not to be detected by physical signs.

The diagnosis of lobar-pneumonia is, as a rule, very easy and if we carefully consider the symptoms and physical signs, together with the history we should seldom fail to detect it.

We should always be on the lookout for complications in this form of pneumonia. Pleurisy with effusion is very common, and pericarditis when the pneumonia is on the left side is not very rare.

The prognosis of lobar-pneumonia in children is very good except in cases previously weak and debilitated. A persistent high temperature is grave, and convulsions late in the disease are also a serious sign.

As lobar-pneumonia is a self limited disease of short duration, many cases require almost no treatment except careful nursing and judicious feed

ing. Many cases especially in older children, are very mild as indicated by their temperature and in these cases an expectant plan of treatment is usually recommended, but it is perhaps better to give some form of stimulation from the beginning in every case. Strychnia is the drug to use. If any other stimulant is needed later on, brandy or ammonia may be given. If the temperature continues above 104.5° or 105° for any length of time, we should use judicious means to lower it. In selected cases when plenty of stimulation is being given it will do no harm to give one or two doses of phenacetin, especially if there are many troublesome nervous symptoms also present, but the temperature in most cases can best be reduced by hot mustard baths and hot packs.

The heart often shows great weakness and should receive special attention. Besides strychnia and whiskey or brandy we may use sparteine for the heart, but we should be careful how we use digitalis as it is a dangerous drug in pneumonia, and has probably injured more cases than it has ever benefitted. If used here it should be given always in connection with nitroglycerine.

If the cough is very troublesome moist inhalations may be used with some benefit. Codea in small doses occasionally will give the patient rest and sleep.

Expectorants seem to do little good and the patient is usually more comfortable if they are not given at all.

The child should be closely watched when the crisis is expected, and the mother or nurse warned what to do in case the physician is not present. The temperature may drop to normal or even lower, and if prompt measures are not taken the child may die in collapse; stimulants should be freely given and hot bottles applied if necessary. As soon as the crisis is passed resolution begins at once and the child goes on to a rapid recovery unless there are some troublesome complications present.

Announcement.

Within the forty-two or more pages of the reading matter in the JOURNAL, not a line of advertising will be admitted; no reading notes; no advertising inserts. Much matter of this character reaches us that is really interesting and instructive, but in justice to subscribers and advertisers we must place it all where it properly belongs, viz. : in columns set apart for it.

With our January issue our JOURNAL will almost double in size, will be issued once monthly at \$1.00 per year. We want every doctor in the Carolinas to subscribe.

North Carolina Medical Journal.

ROBERT L. GIBBON, M. D.

ROBERT D. JEWETT, M. D.
Editors and Proprietors.

W. H. WAKEFIELD, M. D.

COLLABORATORS.

H. T. BAHNSEN, M. D., Salem, N. C.
J. HOWELL WAY, M. D., Waynesville, N. C.
J. ALLISON HODGES, M. D., Richmond, Va.
S. WESTRY BATTLE, M. D., Asheville, N. C.
GEO. G. THOMAS, M. D., Wilmington, N. C.

R. L. PAYNE, M. D., Norfolk, Va.
H. S. LOTT, M. D., Winston, N. C.
J. W. LONG, M. D., Salisbury, N. C.
H. A. ROYSTER, M. D., Raleigh, N. C.
ALBERT ANDERSON, M. D., Wilson, N. C.

J. F. MONROE, M. D., Davidson, N. C.

Translation and Foreign Reviews, RICHARD H. WHITEHEAD, M. D., Chapel Hill, N. C.

The Editors are not responsible for the views of Contributors.

Contributions for the Original Department of the North Carolina Medical Journal are received with the understanding that they are contributed exclusively to this Journal.

Illustrations necessary to elucidate the text will be provided without expense to authors when suitable ink drawings or photographs are furnished.

Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. 100 to 200 reprints of Original Articles will be furnished gratis to Authors making the request, or if preferred, Authors may have 25 to 50 copies of the Journal mailed free to their friends by furnishing their addresses.

Address all communications and make all money orders payable to The North Carolina Medical Journal, Charlotte, N. C.

Editorial.

ANNOUNCEMENT FOR 1900.

THE JOURNAL enters upon the new year with very flattering prospects of a successful career. During the past twelve months the subscription list has doubled, the amount of reading matter in each issue likewise increased, and the general appearance of the JOURNAL, if we may judge from the kind expressions of opinion of our readers, has been much improved. We are therefore encouraged to persevere in the effort to elevate still higher the standard, because we believe that only a journal of this character will merit the loyalty of the medical profession, and in trying to represent the physicians, especially of this section, it is also hoped that the JOURNAL may contribute, in however small a way, to the unification of medical interests throughout the country, a consummation which is to be devoutly wished.

As a result of one year's experience in publishing the NORTH CAROLINA MEDICAL JOURNAL, several changes in its publication have presented themselves, in so forcible a light, to be for the advantage of all interests concerned, that after mature deliberation and consultation with prominent professional friends, the present management has decided upon the following plans, to take effect January, 1900:

The first relates to name, and for reason which space will not permit us to give here, the next issue of the JOURNAL will be entitled THE CAROLINA MEDICAL JOURNAL instead of THE NORTH CAROLINA MEDICAL JOURNAL as hitherto.

The second change is in the matter of issue. Some years ago THE NORTH CAROLINA MEDICAL JOURNAL, then published at Wilmington, N.

C., no doubt for good and efficient reasons at that time, was changed from a monthly into a semi-monthly. While this frequency of issue presents some advantages, they are overbalanced in other directions by drawbacks that, in this section at least, do not obtain in an issue of once a month. An issue of twelve numbers a year will result in an increase in the size of the single copies to something like 100 per cent., and will enable the publishers of the JOURNAL to give subscribers the benefit of a lessened expense account by reducing the subscription price to one dollar per annum, payable in advance, a change to which we feel sure our readers will offer no serious objection.

We desire to express a grateful appreciation of the generous support accorded the JOURNAL throughout the past year by the profession, and to hope that our readers may individually realize during the new year that prosperity which this season naturally suggests.

TREATMENT OF PNEUMONIA.

Despite the many advancements in our knowledge of the etiology, pathology and natural history of pneumonia, when it comes to a consideration of the question of treatment, it becomes painfully apparent that in this particular disease curative measures have not kept pace with increased knowledge. It has indeed been claimed that the results of modern treatment show but little if any improvement over the older therapeutic measures. Our statistics assuredly seem to lend countenance to such pessimistic views, and a recent writer on the subject has made the assertion that in the temperate zones, pneumonia is chargeable with more deaths than any other single disease—pulmonary tuberculosis excepted. Dr. Edward F. Wells has compiled a table containing 358,435 cases with 77,991 deaths, a mortality rate of 21.7 per cent., nor does he consider this an over-estimate of the ordinary death rate from pneumonia. Its prevalence among elderly people is so great that Osler has declared it to be the natural end of the old in this country. Among this latter class the mortality is variously estimated from 70 to 80 per cent., while 60 per cent. is supposed to represent a conservative figure. In the face of such fatality Prof. Osler's oft quoted saying does not seem exaggerated, and is a most depressing commentary upon the inadequacy of our means for combating this enemy to "green old age."

Professional opinion as to treatment is as varied as might be expected in a malady, the natural course of which seems so slightly influenced by therapeutic measures. The advocates of blood-letting, veratrum, digitatis, cold pack and strychnine have all claimed favorable results as well as scientific reasons, based upon physiological action and pathological conditions, for the employment of their favorite remedy. While doubtless most of these and some other drugs serve a highly useful purpose under given circumstances, their number is sufficient proof that none are to be regarded as possessing paramount curative powers in even a majority of cases. The ability to discriminate, and the hygienic and prophylactic means suggested

by a knowledge of the natural course of the disease are of more value than a blind adherence to any one plan of treatment.

With the discovery of the diplococcus and its recognition as the cause of pneumonia, high hopes were entertained of the serum treatment, and while as yet it may be too early to formulate a decided opinion as to its value, we are again confronted by that *bate noir* of all the serum treatment, viz. "mixed infection;" for as Anders' well remarks, we can not hope to cure a streptococcic pneumonia with an anti-pneumococcic serum, and the same is true in cases of the mixed type.

THE PNEUMOCOCCUS OF FRANKEL.

This organism, now regarded as the essential causative factor in the production of pneumonia, presents many peculiarities of interest to the bacteriologist. The following is an instructive and concise description of the diplococcus, together with a brief statement of the undecided questions connected with the role it plays in pneumonia, by Dr. Wells in a paper read before the American Medical Association:

"The pneumococcus is rounded or tapered at both ends and has a mucinous capsule. It is found single, often paired, or frequently in groups, enclosed in the same or in adhering capsules. It colors readily with aniline dyes and is not affected by the Gram method. It is cultivated with difficulty, and much care is required to obtain pure growth. It does not lend itself kindly to saprophytic existence, and has not yet been found in the air. It will not grow in acid media and cultures produce an albuminose and an acid. Its capsule is lost by cultivation. It varies in size, appearance and virility. Its virulence diminishes as convalescence advances. It loses virulence by cultivation, but this may be restored by passage through the rabbit. An organism which can not now be differentiated from the pneumococcus is present in the mouth and upper air-passages in a large portion of healthy persons. Diplococci from the mouth are less active and can not be made as virulent as those from pneumonic sputum or exudate. To round out our knowledge of the pneumococcus we need definite answers to the following questions: Is the diplococcus found so frequently in health in the mouth and upper air-passages identical with that found in the pneumonic exudate and sputum? If so, how does the organism obtain entrance into the mouth and nostrils? Has it a wide-spread saprophytic existence, finding its way into the body with the inspired air, or does it pass from one person to another only by direct conveyance of the moist or dried secretions? If it is not identical, whence comes the pneumococcus, and what is its life history outside the body? What measures can be instituted to destroy the germ outside the body, prevent its entrance into the system, or render it innocuous after entrance? Any intelligent prophylaxis will depend upon full and complete answers to these questions."

Medical News and Items.

Russia has three thousand surgeons in her army.

It is feared that the famine in India will affect a larger area than in 1896.

Small Pox prevails to an uncomfortable extent in many places in our state.

Mr. William Waldorf Astor has contributed \$25,000 to the British Red Cross Committee for use in the Transvaal war.

The Johns Hopkins University will send an exhibit to the Paris Exposition.

The Medical Profession will be gratified at the appointment by the President of General Wood, (M. D.), to be military governor of Cuba.

The late Cornelius Vanderbilt left by will \$50,000 to St. Luke's Hospital in New York City; \$10,000 to Newport Hospital, R. I., and \$100,000 to Yale.

Osteopathy has just received a set back in Georgia. A bill had passed both houses of the General Assembly, providing for the practice in Georgia of osteopathy, but Governor Chandler, after conference with many physicians, vetoed the bill.

The Journal of the American Medical Association reports that two men have been committed to prison for selling oleomargarin as butter. One has been sentenced to pay a fine of \$1500 and six months imprisonment; the other has been fined \$500 and given four months in jail.

The Law and Equity Court of Richmond, Va., in the case of Dr. Susan A. Roope vs. the J. L. Hill Publishing Co., for damages resulting from the publication of her name in the directory as a "midwife," a title which she claimed was not complimentary, has decided in favor of the defendant on the grounds that such publication was not libelous.

Small Pox has been prevalent in Dixon, Ill., for the past six weeks, but owing to the mildness of the disease it was not recognized by the local profession. There had been about one hundred cases which were regarded as chicken-pox until the correct diagnosis was made by the inspector of the State Board of Health. The diagnosis of small pox has been confirmed by Dr. J. A. Egan, secretary of the Board, and Dr. Heman Spalding, inspector of the Chicago Health Department.

Punished for Substitution—A decision of considerable importance was made by Judge Kohlsaat in the United States Circuit Court in Chicago. In a bill for an injunction Fairchild Brothers & Foster of New York had charged Edward Otto, a Chicago druggist, with substituting a spurious and inferior preparation for "Fairchild's Essence of Pepsine" in several cases where the latter was expressly called for in physicians' prescriptions. The case was hotly contested and hundreds of pages of depositions were taken in New York and Chicago. Judge Kohlsaat's decree sustains the charges made, perpetually enjoins Otto from ever repeating the offense and taxes him with the costs, amounting to about \$500. This is said to be the first contested case in the United States in which the principle of protection to trade-marks and trade names was extended so as to apply to what is techni-

cally known in the drug business as "substitution." Judge Kohlsaats decision will probably protect manufacturing chemists, physicians and the general public, all of whom have in the past suffered from these fraudulent practices of a certain class of druggists.

Marriage.

Dr. Thomas Reddick and Miss Lucy G. Cowper were married on Dec. 14th, 1899, at Gatesville, N. C. Dr. Reddick is connected with the *Southern Medical Journal*, and is a clever gentleman and successful physician.

Death.

Dr. J. B. Triplett, of Elk Bark, N. C., died very suddenly of heart disease in October. The doctor was a man of good attainments and enjoyed a very extensive practice. A widow and two sons and many relatives and friends mourn his untimely decease.

Society Meetings.

The Seaboard Medical Association of Virginia and North Carolina will hold its third annual meeting at Newport News, Va., on Thursday, January 11th. A large attendance is anticipated, and many valuable papers have been promised.

The second annual meeting of the Tri-State Medical Association of Virginia and the Carolinas will be held in Charleston, S. C., on Tuesday, February 20th, 1900.

Epitome of Medical Progress.

The Treatment of Pneumonia with Anti-Pneumonic Serum.—Antonia Fanoni, M. D., (*New York Medical Journal*, 1899, Vol. LXX, No. 9.) reports six cases of pneumonia treated by this method.

The serum is prepared in two strengths—No. 1 is mild and No. 2 being a more concentrated and stronger preparation.

The first is used in the milder cases and early in the disease, while the second is reserved for the more severe types of pneumonia.

The author suggests along the posterior axillary line, as being the best site for injecting. The injection is given twice a day, say at 8 or 9 a. m., and again between 8 and 10 p. m.

The injections should be used regularly while the fever exceeds 104° F. If the fever subsides and there are no asthenic symptoms, we may suspend the injections; but if the temperature rises again, we have to resume the injections.

The usual dose is ten cubic centimetres at each injection. The syringe used may be a large hypodermic, and it is well to wash it in a four-per cent. solution of carbolic acid before using.

The skin must also be disinfected by means of a solution of bichlorid of mercury.

It is best to make the first injection in the posterior axillary line, between the eleventh and twelfth ribs, so as to leave a sufficient space for later injections.

When the serum is used all other medication is to be omitted; employing the usual hygienic measures, and the patient may be given some alcohol and water. The daily diet may comprise a litre and a half or two litres of milk and one or two cups of broth, with the yolk of an egg.

Of the six cases reported by the author recovery resulted in all but one case. The resolution in these cases was as follows: First case, eighth day, by lysis; second case, sixth day, by lysis; third case, tenth day, by lysis; fourth case, seventh day, by lysis; fifth case, seventh day, by lysis; sixth case, sixth day, by lysis.

The author draws the following conclusions, from his own observations, and the list of successful cases previously reported:

1. That Pane's antipneumonic serum is the rational remedy in pneumonia, as it constitutes the specific treatment, the same as Behring's anti-toxin does in diphtheria.

2. That injections with this serum are not painful, and do not produce any general or local reaction.

3. That serum over five months old is no longer active and produces; no results, although it does no harm; and after it is four months old it begins to lose strength, and the amount given after this time should be increased in proportion as the date of the preparation of the remedy is removed from the date of administering up to the fifth month.

4. That the serum will not do harm, even if given in doses of one hundred to one hundred and fifty cubic centimeters in twenty four hours.

5. That the serum in all the cases under his observation had shown wonderful efficacy, not only in producing rapid improvement of the general condition, but in hastening resolution in case it is given early in the disease.

6. That in any lobar pneumonia, especially if the prognosis is grave, it is the duty of the physician to use this serum, and if he fails to do so there is no excuse for such an act, except ignorance of the work that has been done in the field of serum therapy of pneumonia.

R. L. F.

Acute Bronchitis.—A symptom; the treatment from an etiological stand point.

Dr. Reilly (Medical Record 1899, Vol. 56 No. 57) says, the term "bronchitis" as applied to catarrhal conditions of the bronchial mucous membrane dates from the writings of Barnham and Folk in the early part of the century. Gradually this symptom came to be regarded as a disease entity. Later views, in the light of clearer pathological findings, lead us to regard it as only one manifestation of a constitutional disorder.

We know that poisonous matters are constantly excreted by the mucous

membranes of the respiratory tract, as well as by the skin and kidneys, and that in the perfect performance of function there must exist a proper balance. If, however, the amount of poisonous substances to be eliminated be greater than usual, and the skin and kidneys cannot excrete it, there will be a deposition of the same at the point of least resistance, and, consequently, irritation of the structure results. That these poisons should be deposited in the mucous membrane of the respiratory tract sooner than elsewhere is very evident when we consider that here the blood-vessels have less covering, the lymph channels are more superficial, and, in the case of some parts of the mucous membrane of the respiratory tract, the temperature of the blood is lower than in the more deeply placed structures.

A preliminary throat irritation almost invariably precedes by several hours an attack of acute rheumatism, and we see the red throat and larynx in scarlet fever twenty-four hours before the other objective symptoms manifest themselves.

In like manner we shall invariably find an irritation of these membranes slightly earlier than the other objective manifestations in all acute infections. Often when the toxemia is slight the eruption on the mucous membrane will be the only symptom.

One of the most brilliant results of such a conception of etiological factors is to be seen in the results of our treatment of many cases of tonsillitis and pharyngitis. Where teaspoonfuls of tincture of the chloride of iron and chlorate of potash were given; now all is changed. Most cases respond readily to the anti-rheumatic treatment, and the condition lasts half as long.

It is the opinion of the writer that the commonest cause of this symptom in adults is the so called uric or lithic acid poison. This term is intended to embrace the large number of complex substances, more or less closely related to uric acid, that have a similar origin but differ slightly in chemical constitution.

The great value of sodium bicarbonate in the treatment of catarrhal conditions of the upper air tract, has been demonstrated by many competent observers.

In considering acute bronchitis in the light of a toxæmic manifestation we find a ready explanation for the undoubted value of profuse diuresis and diaphoresis in the treatment of this condition. By rapidly eliminating the toxins in this manner many attacks are cut short.

As far as rational therapeutics can carry us, the indications for treatment point 1st, to the repeated cleansing of the intestinal tract; 2nd, to aiding the skin and kidneys in the elimination of toxic products by repeated diaphoresis and the ingestion of large quantities of water; 3rd, to neutralizing or hastening the elimination of the so-called lithic acid poison.

The author's summary: 1st, acute bronchitis is a symptom; 2nd, the diseased condition of which it is a symptom is a toxæmia, which may be due (a) to the so-called uric-acid poison, (b) to auto-intoxication from the intestinal canal; 3rd, the treatment with nauseous mixtures, under the name

of expectorants, is illogical, and is opposed to modern therapeutics; 4th, in every case we should endeavor to discover the etiological factor, and treat the same.

R. L. F.

New Views in Pneumonia.—In Pediatrics of a few weeks ago were made some remarks upon the bacterial origin of pneumonia, but since that article was written an altogether new theory has been promulgated as to its cause. Dr. Andrew A. Smith has contributed an article on croupous pneumonia to the sixteenth volume of the Twentieth Century Practice of Medicine just published, in which he states, as his opinion, that the disease is not an inflammation of the lung. He takes this ground for the reason that it does not affect the structure of the organ. He contends that it is a process of germ culture, in which the pneumococcus grows in a culture medium supplied by the functional capillaries of the lung. According to Dr. Smith, the cause of pneumonia lies in the double circulation in the lungs. The gist of the argument, as stated in Twentieth Century Practice of Medicine, is that from its peculiar construction the lung is enabled to afford a field for bacterial culture and to supply a culture medium, and this without calling upon its own nutritive resources or directly compromising its own tissues. It is a fact that in the lung are empty spaces, accessible to bacteria and separated from an unlimited blood supply by only the thinnest and most permeable walls that make the phenomena of pneumonia possible. It is the further fact that the framework between these spaces has its own separate blood supply, apart from the vessels involved in the pneumonic process that prevents a sweeping destruction of the lung tissue. In no other organ of the body is such a mingling of structural health and diseased action conceivable, for in no other organ is the blood supply for nutrition and function separately provided for (except in the heart, where a somewhat analogous condition is met with). In speaking of the phenomena of crisis, Professor Smith gives the following new deductions: That normally there is carried into the functional capillaries a varying amount of sodium bicarbonate, held in solution in the blood. It is requisite that the carbon dioxide contained in the bicarbonate should be set free in the lungs, in order that it may escape with the expired air. Nature provides for this by the production of a special organic acid, known as pneumatic acid. This combines with the sodium, and the carbon dioxide thus liberated passes into the alveoli. But when the functional circulation ceases, the sodium bicarbonate is no longer at hand to neutralize the pneumatic acid, which continues to be produced as a part of the nutritive process. The parenchyma of the lung therefore becomes saturated with a free acid, and the slightest trace of acid in the medium is, as has been proved from laboratory experiments, fatal to the propagation of the pneumococcus.

Three Points in the Treatment of Pneumonia in Infants.—In a paper by Dr. W. P. Northrup, of New York, published in *Medical Age*, the author emphasizes three points as follows:

First, hygienic conditions: Fresh air, a large room, changing the patient from one well-aired and freshened room to another in like condition. The temperature of the room should vary inversely as the temperature of the patient—65 to 68 degrees Fahrenheit, when the patient's temperature is high, and higher, say 70 degrees Fahrenheit, when the patient's temperature reaches normal. An infant with high temperature and dry skin is in no danger of taking cold. A window should admit fresh air continually. However damp or dry the outer air, the warm walls and furniture of a heated house will temper it to the needs of the child. Nothing so refreshes an infant, nothing is more essential to the condition of the blood, nothing acts more favorably as a heart tonic, than cool, fresh air. On the other hand the opposite conditions are these: The infant's crib is closely tented about with blankets; the windows are covered with sheets to keep off draughts; added to this are often in the room numerous relatives and large gas-jets consuming the oxygen. If a well lady faints from the exhausted air of a heated and crowded room, may not the overburdened heart of a pneumonia patient sometimes be seriously embarrassed in its struggle under similar circumstances? No fever patient ever caught cold from air coming in contact only with the oval of the face. It is not the air going in the nose and mouth that gives cold.

Secondly, the care of the digestion: Pneumonia disturbs the infant's digestion; flatulence embarrasses the action of the diaphragm; pressure upward against the heart may determine the unfavorable outcome of the disease. One might almost formulate the advice, "To cure pneumonia, treat the digestion."

Thirdly, the use of water: Bathing, to save nerve exhaustion, or, to put it in another way, to stimulate the nerve centers. A physician once suffered great remorse because a child developed pneumonia after he had treated it several days for typhoid fever, using baths, carefully regulated feedings, etc. This error in diagnosis probably gave the child its best chance of recovery. He often thinks it would be well to make a diagnosis of fever and not of pneumonia, so that friends would allow one to treat the patient rationally.

Water should be freely administered internally as well. The refreshing cold water on the lips, in the mouth and stomach of a fever patient need only be suggested. Again, he thinks a diagnosis of fever instead of pneumonia might permit of the more general use of cold water externally. He condemns poultices for reasons that they impede action of thorax, and they overheat the fevered patient. If used at all they should be light and thin, and combined with mustard, and used for pain only. The antipyretics, such as the coal tar products, are mentioned by him only to be absolutely condemned. Strychnia and such other heart stimulants, digitalis and alcohol are strongly condemned.

Notes on Manilla. (Dr. Barker, *Maryland Medical Journal*, November 25th, 1899), concludes his interesting paper by referring briefly to a large outbreak of beri beri among a number of Filipino prisoners, which he and

his colleagues had an opportunity of studying. No less than two hundred of the one thousand prisoners confined in the old Spanish prison at Cavite developed the disease. The cases of beri beri are divided into three main types: (1) the oedematous form, (2) the paralytic form, and (3) the mixed form. In nearly all cases circulatory disturbances are marked early in the disease.

There is palpitation of the heart and throbbing of the peripheral vessels. Physical examination shows enlargement of the heart, especially of the right side. This enlargement is due chiefly to dilatation, and is accompanied with very marked cardiac distress. Digestion disturbances are also common at the beginning. There is anorexia, nausea and frequently vomiting. In the oedematous form the legs begin to swell and the oedema gradually extends upward until in some cases the whole body is involved. In very severe cases there is hydro-peritoneum, hydrothorax and hydro-pericardium. Many of the latter cases terminate fatally. In the paralytic form without oedema disturbances of locomotion come on gradually. The symptoms resemble closely those of peripheral neuritis, but differ somewhat from the latter disease as ordinarily met with. Many observers believe that no actual neuritis exists, but only a degenerative process. Pain is usually present in some part of the body. Pressure on the muscles of the calf usually causes excruciating pain. Sensation may or may not be considerably involved. The reflexes also vary with the distribution of the neural lesions. After a time muscular atrophy sets in, and these patients may become much emaciated. In the so called mixed form oedema and paralysis are associated. The clinical and epidemiological history of the disease speaks strongly in favor of an infectious nature. The symptoms are those of a severe intoxication.

Cultures made from the blood on bloodagar from a large number of cases of beri beri yielded negative results.

Careful autopsies were conducted on those who died in the hospitals, and all the pathological material collected was brought back to this country. It is to be thoroughly studied and the results published later.

R. L. F.

Value of the Tuberculin Test in the Diagnosis of Tuberculosis.—Dr. Edward Otis, (*Journal American Medical Association* 1899, Vol. XXXIII. No 18), in advocating this method of diagnosis, says (1) The tuberculin test indicates early tuberculosis, by a general reaction before it can be detected by other methods, except the X-ray, in the large majority of cases, with a dose of from 5 to 10 Mg. of Kochs' original tuberculin.

(2) No injurious results occur from the use of tuberculin in these doses.

(3) Proved tuberculosis in a more or less advanced stage may fail to give a general reaction from doses of from 10 to 12 Mg.

(4) Syphilis gives a reaction in an undetermined proportion of cases.

(5) There is a dose, undetermined, at which a non-tubercular person may react or simulate a reaction.

(6) The reaction may be deferred from six to twenty-four hours.

As rules to be observed in making the test:

(1) Always use the same tuberculin and of a standard strength.

(2) Use aseptic precautions in giving the injection.

(3) Make the injection deep into the muscles of the back, arm, or leg.

(4) Keep a two, three, or four-hourly chart of the temperature if possible, beginning twenty-four hours before the injection.

(5) Allow several days to elapse before repeating the test.

(6) In early cases depend on the general reaction; in late cases, if the general reaction fails, carefully look for the local. R. L. F.

A New Method of Staining Malarial Parasites. Drs. Futches and Lozear (*Johns Hopkins Hospital Bulletin*, X. No. 97. *Post Graduate*, Volume XIV. No. 9.

The authors claim for this a very quick process and very serviceable in cases where one is called out to see a suspicious case and has not a microscope with which to examine the fresh blood. "Make the ordinary smear preparation, fix in $\frac{1}{4}$ per cent. formalin in 95 per cent. alcohol for one minute, wash in water, thoroughly dry. It is important that the formalin solution should be made up fresh each time it is used. The stain consists of a saturated solution of thionin in 50 per cent. alcohol, of which 20 cc. are added to 100 cc. of a 2 per cent. solution of carbolic acid. Only ten to fifteen seconds are required for staining. It is perhaps better to keep the stain for some time before using, as it improves with age. Thionin phenate is formed, which is believed to be the active staining agent. After staining, wash off the excess of stain, blot, mount in balsam and the specimen is ready to be examined. The whole time consumed is not more than two minutes.

The malarial parasites come out distinctly as reddish-violet bodies with this stain, and it is especially serviceable in staining the ring-shaped bodies of the æstivo-autumnal infection. The parasites retain the color much better than they do when stained with methylene-blue.

The authors also used the thionin to try and bring out the flagellated processes in the æstivo-autumnal infection. Probably one of the most convenient methods for obtaining permanent preparations of the flagella is that described by Sakharon, in which an ordinary specimen is made on the slide, and at the same time several specimens of blood are taken on cover-slips, leaving the latter in contact with each other in a moist chamber and watching the ordinary preparation under the microscope until flagellation begins, when the cover-slips in the moist chamber are taken out and drawn apart and dried. One will then most likely catch the organisms in the flagellating stage.

The authors have fixed some of these by heat and then stained with thionin, and have obtained some good specimens, showing the flagellate processes coming off from the body of the parasite.

This method of fixing and staining is not to supersede the examination of the specimen of fresh blood, always the most satisfactory method, but only when staining is the only resource and rapid results are desired.

R. L. F.

Bulletin of Mt. Hope Retreat.—We have on our desk, the "Bulletin of the Laboratory of Mount Hope Retreat," lately issued. It sets forth some very interesting work of Dr. Richardson, Pathologist to the Retreat, the results of which are included in an admirable paper, entitled, "The Secretions in the Insanities," and in another, "Indol, its Clinical Significance, and its Estimation." The former suggests that the certain cause insanities resides in some underlying condition of nutrition or intoxication, and exhibits analysis of the stomachal contents, blood, urine, and feces, which strongly sustain this suggestion. The latter paper is an elaboration of this idea with reference to Indol, and demonstrates by a number of analyses (1st) The presence of Indol in the urine, (in varying excessive amounts.) in most forms of insanity, in epilepsy, albuminuria, most diseases of the digestive tract, etc., (2nd) that Indol is the product of bacterial action on proteid, that it is produced almost entirely in the large intestine, that the three

principally active and best known bacteria are, *B. Coli Communis*, *B. Proteus Vulgaris*, and *B. Cholera Asiatica*. (3rd). Methods of making analyses.

The Bulletin contains a paper by Dr. Chas. G. Hill, Physician-in-Chief to the Retreat, "The Pathology of Epilepsy." It is a masterly recount of the recent pathologic researches and findings in this intractable affliction, and gives an encouraging report of the use of "Suprarenal Extract" in epilepsy. The formula of the dose given t. i. d. is

R Sol. Suprarenal* 3i
 Calcium Chloride gr ii
 Sodium Bromide gr v

*3 i of solution equals gr i Armour's Powdered Extract.

The author hopes soon to report some cures.

The Cancer Parasite.—Dr. Curtis, of Lille (*La Presse Medicale*, 1899, No. 20), reports totally negative results in his search for a cancer parasite. His deductions are drawn from a series of experiments now in progress for over four years. He calls particular attention to the fact that tissues derived from superficial epitheliomata are not the best to use in experimental work, since they are so liable to be contaminated with various outside organisms. He used carcinomata of the breast and testicle. In a carefully conducted series of experiments with eighteen of such cases, he was unable to obtain any parasites that would grow on any media, and was unable to produce any contagion in other animals. The author believes that the positive results obtained by other observers are due to defective technique.—*Medical Record*.

Tetanus Following Induced Abortion.—Turenne, of Montevideo (*Ann. de Gynecol.*, June, 1899) relates the case of a graduate midwife who complained of a difficulty in opening her mouth following a slight uterine hemorrhage. While the picture of tetanus soon declared itself, search for a wound was fruitless. The patient confessed, however, that believing herself one month pregnant, she had attempted an abortion, using for this purpose an unsterilized intra-uterine injection. The catheter employed was also used without any antiseptic precautions. The patient died after the customary evolution of the disease. There was at that particular time no antitoxin in Montevideo.

While this complication of induced abortion is extremely rare, it is interesting to know that the ancients were not unacquainted with it (Archigenies). Vinay, who wrote in 1891, was able to collect notes of 108 cases of puerperal tetanus from medical literature, and of this material 47 cases were connected with the act of abortion, interference during the earliest months furnishing the largest quota.

In Turenne's case the midwife picked up the sound from a dresser, in which situation it had been accessible to the street-dust. No attempt whatever had been made to clean it before its introduction. Six days elapsed between this exposure and the first indication of trismus. The patient was dead within the ensuing forty-eight hours.—*Obstetrics*.

The Tongue in Influenza.—M. d'Hotel (*Medical Press*, June 14, 1899) draws attention to a character of the tongue constituting a pathognomonic sign of that mysterious affection known as influenza. If the malady is observed during the first few hours of its invasion, the tongue may not present any abnormal feature, but the following day it is invariably covered with a white coating more or less thick towards the center. Later on, according as the affection is of a benign type or becomes complicated or prolonged, the lingual coating is seen to diminish from the point, or on the contrary to remain. This label of influenza is in general the last sign to dis-

appear, and it is not rare to observe three weeks after the debut a remainder of a whitish triangle at the base of the tongue, indicating that the patient not only has been through the malady, but also that he is not yet absolutely free from the morbid condition, although the general state of his function may appear regular—an imprudence on his part, a cold, might provoke broncho-pneumonia, gastro-enteritis, or some other complication. Another characteristic of this lingual deposit is to redden litmus paper when rubbed on it, and not only during the first days of the malady, but as long as there remains a trace of it on the tongue.

This acidity persists as long as there remains any trace of the fur, and is a natural indication of the treatment, which is that of frequently rinsing the mouth with an alkaline solution, such as Vichy water, followed by the internal administration of the same. It is evident that influenza cannot be cured more than typhoid fever, but M. d'Hotel affirms that complications were much rarer where the alkaline treatment was used.—*Medical Age*.

Book Reviews.

Essentials of Physical Diagnosis of the Thorax. By Arthur M. Corwin, A. M. M. D., Instructor of Physical Diagnosis in Rush Medical College; attending physician to the Central Free Dispensary, department of Rhinology, Laryngology and diseases of the chest. Third edition revised and enlarged. W. B. Sanders, Publisher, Philadelphia.

This little volume of 220 pages gives in a systematic manner the gist of physical diagnosis as related to the thorax. The text is well illustrated and the salient features of the various manifestations of diseases of the chest are so arranged as to be readily grasped by the student and afford a quick means of refreshing one's memory upon points of physical diagnosis. Skill in interpreting the signs of thoracic disease is an accomplishment not to be over-rated in medical practice, and will well re-pay any extra effort of study and practice. As a guide to such an end Dr. Corwin's work can be cordially commended.

Essentials of Anatomy, including the Anatomy of the Viscera, arranged in the form of Questions and Answers prepared especially for Students of Medicine. By Charles B. Nancrede, M. D., Professor of Surgery and of Clinical Surgery in the University of Michigan; Emeritus Professor of General and Orthopedic Surgery, Philadelphia Polyclinic; Senior Vice-President of the American Surgical Association; Corresponding Member of the Royal Academy of Medicine, Rome, Italy; Member of the American Academy of Medicine, etc. Sixth edition, thoroughly revised by Fred J. Brockway, M. D., Assistant Demonstrator of Anatomy, Columbia University, New York. Net price, \$1.00. W. B. Sanders, Publisher, Philadelphia.

This is another of the excellent series of Question-Compends issued by the publishing house of W. B. Saunders. That the profession and students of medicine recognize the worth of these publications is attested by the fact that over 175,000 copies have been sold since the first volume was issued. The present number is well illustrated, with the name printed clear on each particular part.

Scribners Magazine for January, which begins the new volume, also marks the opening of two important serial features for the year.

J. M. Barrie's great novel, "Tommy and Grizel," upon which he has been at work for years begins in this number.

Theodore Roosevelt begins in this number his monograph on "Oliver Cromwell," which is to be a feature of this magazine for six months. The illustrations of the Cromwell serial are elaborate and profuse.

A paper of great significance at the present time it Frederick Palmers View of "White Man and Brown Man in the Phillipines."

A short article by Frederic Irland, called "The Coming of Snow" gives an account of a successful moose hunt in New Brunswick, illustrated.

Coca and Its Therapeutic Application—By Angelo Mariani. With illustrations. Address J. N. Jaros, 52 West 15th St., New York.

This is a handsome cloth bound book, giving much very interesting information in regard to the history of this most important plant, its mode of cultivation, therapeutic properties, and much other valuable knowledge which the scientific physician desires. The illustrations are many and beautiful. This book will be sent complimentary to our readers who will address the publisher as above.

Companion Stories for 1900—The stories published in *The Youth's Companion* portray the manly and womanly virtues with no sacrifice of interest or vitality, and they appeal to the sympathies of old and young alike. During 1900 *The Companion* will offer special series of stories—among them being stories of Former Political Campaigns and Adventures of Linemen.

Besides these there will be a score of stories for girls by such writers as Sarah Orne Jewett, Mary E. Wilkins, Margaret Deland, Elizabeth Stuart Phelps, Edith Wharton, Kate Chopin and Margaret Sangster. There will be four serial stories—"A Prairie Infanta," by Eva Wilder Brodhead; "Running a Merry-Go-Round," by Charles Adams; "The Schoolhouse Farthest West," by C. A. Stephens; and "Cushing Brothers," by Ray Stannard Baker. In addition there will be two hundred other short stories by the most gifted of American writers of fiction.

All new subscribers will receive *The Companion* for the remaining weeks of 1899 free from the time of subscription, and then for a full year, fifty-two weeks, to January 1, 1901; also the *Companion's* new Calendar for 1900, suitable as an ornament for the prettiest room in the house.

Illustrated Announcement Number containing a full prospectus of the volume for 1900 will be sent free to any address.

THE YOUTH'S COMPANION,
203 Columbus Avenue, Boston, Mass.

THE CAROLINA MEDICAL JOURNAL will succeed **THE NORTH CAROLINA MEDICAL JOURNAL** in January, 1900. It will be about twice the size of this issue, will be a monthly at \$1.00 per year, in advance. Send us \$1.00 and begin the new year right.

Therapeutic Experiences and Suggestions.

The object of this department is to afford the profession an opportunity to discuss, pro and con, the newer therapeutic agents.

The Rational Treatment of Pneumonia.

[ORIGINAL COMMUNICATION.]

BY LUCIAN LOFTON, M. D., Norfolk, Va., President Seaboard Medical Association of Virginia and North Carolina.

A great many of the leading text books will tell you pneumonias run their course uninterrupted by any medical treatment whatsoever. This assertion may bear out the statement of some men, but it will not hold good in forty per cent. of the cases the average practitioner is called upon to treat. In fact I believe a well developed case of pneumonia of whatever description will respond to the latter day method of handling such cases. In times ago the treatment par excellence was either heat or cold locally, together with internal stimulants, and much success followed these methods, but living in this most progressive age no man can fail to find means by which a new regime may be inaugurated and thus reduce his mortuary record. I do not decry the use of heart stimulants in this disease but on the contrary use them whenever necessary; but to rely upon counter irritation and the ice pack solely with a view of bringing your patient to a successful end, is not considering matters seriously enough by any means. It is quite necessary to give these cases all the liquid food the stomach is able to legitimately assimilate, but solid food ingested by pneumonia patients while the attack is at its height is bad practice and should not be countenanced.

I will suggest a treatment which in my hands has given me the best results I have yet seen. It is a preparation known to the profession as "Viskolein" and the formula I have generally used is composed of the following: Sulphocarbolates of Zinc and Soda (CP) a a: two grains Kolein, one and a half grains, Phenol benzoate seven and twentieth hundred grains, Menthol, Thymol, and Eucalyptol, a a: one and one twentieth hundred grains. This is suspended in a sterilized drachm solution of water, and is used only hypodermatically at intervals of from three to six hours. The site of injection depends upon the affected lung area, or may be inserted where the cellular tissue is loose and redundant. The amount to be given depends in a measure upon the severity of the case, age of the patient, and the general physical condition of the sufferer. The average dose is ten minims for an adult in an equal quantity of boiled water, which may be increased to twenty or thirty minims according to indications and results. There is no depressing effect as a rule; in fact none of the cases treated by me have been thus affected. When you do not wish to give this

preparation as indicated, it may be administered in tablet form, and is a most agreeable form to give it. Altogether the hypodermic method gives me better and quicker results. As an antipyretic the tablet acts admirably and may be used every three or four hours to control any febrile disturbance. I fully realize the profession at large is loath to try any of the newer remedies, and prefer to trod "gently in well beaten paths," and while I prefer to listen to pioneer teaching, I think it a grave mistake to cast aside *anything* that gives prospect of advancement in the "healing art". Much to my regret therapeutics have suffered greatly for the want of proper investigation, while surgery has led the van, to the great detriment of its chief ally.

To enumerate the cases of the various pneumonias treated by "Viskolein" in my hands would be to infringe upon the kindness of the editor, and I will, in consequence, describe the results obtained by me in a cursory way. Being hurriedly summoned to the bedside of a patient recently, I found upon examination, a complete occlusion of the left lung, with absolutely no evidence of respiratory action in the affected organ. Pulse 150, temperature $105\frac{1}{2}$ F., clinched jaws, a fixed and set stare of the eyes, a jerky respiration of the right lung averaging from twenty-five to thirty-seven to the minute. The patient's extremities were cold and clammy, while the skin gave no response to the insertion of a pin. Cyanosis was rapidly coming on, and I concluded I had a desperate case with which to deal. After taking a general survey of the situation, I concluded to tell the parents the chances were very slim for a recovery, at which time they said another physician who had been called in, prior to my arrival, stated the patient would die in two or three hours and he was surprised they should send for him. He could do nothing. An undertaker was what they needed. The parents beseeched me to do "anything" while life lasted. I agreed, but fearing the patient might succumb at any minute, I said, "if the patient cannot swallow we will be compelled to give the medicine by the skin," to which they readily assented. The first injection was made at 4 p. m., of 10 minims of fluid "Viskolein" with an equal portion of sterilized water. At 9 p. m., the patient began to move hands and feet, and could swallow some water, at which time I instructed the mother to give a tablet comprising tincture digitalis, three minims, tincture strophanthus, two minims, every three hours dissolved in a teaspoonful of water. I predicted a change for the better or worse between the hours of three and four the following morning, and precisely at three a. m., a decided change for the better was noted. I saw the change as I entered next morning. I repeated the identical dose but added brandy, one half ounce well diluted, every two hours. In exactly thirty-six hours the fever had abated, the extremities had become warm, (which no doubt had been benefitted by hot water bags), the pulse was 100, the respiration of the right lung was from twenty to twenty-five per minute, and strangely enough the patient began to call for food. Altogether I gave four injections ranging from ten to fifteen minims. I think this a remarkable result in the face of all the

facts, considering in one week's time the patient was sitting up, laughing and talking, the affected lung having practically fully cleared and no consolidation of importance could be noted. This is decidedly the worse case of pneumonia I ever treated with "Viskolein", but the milder forms have responded as beautifully. I cannot too highly commend the preparation to my professional colleagues. Independent of all other remedies save, heart stimulants and liquid foods I firmly believe this compound, especially the fluid form, will neutralize the toxin which results as the presence of the diplococcus pneumoniae.

"Visoklein" should be tried in all cases of pneumonia, likewise any septic systemic poisoning irrespective of origin. It is indeed a powerful toxin neutralizer.

Synergetic Medication—"Antikamnia Laxative Tablets" or "Antikamnia & Quinine Laxative Tablets,"—as the condition presented may require—will compel the excretory organs to perform their natural functions naturally, without griping or stomach sickness, and they are, therefore, the proper remedies for constipation, headaches, chills and fever, malaria, la grippe and allied conditions, coryza, colds, congestions and the general disturbances arising from suppressed action of the various functions of secretion and excretion.

These two new combinations are particularly useful in that torpid condition of the bodily functions, produced by the retention of poisonous ptomaines, scientifically known as autotoxia.

We would especially call attention to the wide use of "Antikamnia & Quinine Laxative Tablets" in chronic or semi-chronic diseases which begin with a severe "cold." Their power to relieve pain, reduce fever, tone up the system, and restore natural activity to the bowels, will, we feel sure, make these tablets unusually valuable.

We believe the profession will at once appreciate the uniqueness and usefulness of these combinations—*The Atlanta Journal-Record of Medicine*.

The Catarrhal Diathesis—In catarrhal affections of the various mucous membranes, particularly of the respiratory tract, there exists not only a relaxed atonic condition of these structures but an underlying constitutional state of malnutrition. All authorities agree that in order to eradicate the local pathologic conditions, treatment by appropriate systemic remedies is indispensable; the patient's nutrition must be fostered and restored so that a degree of constitutional vigor is attained which antagonizes the catarrhal processes. Gray's Glycerine Tonic Comp. is the remedy par excellence in these cases because it has a two-fold action. Primarily and chiefly it overcomes malnutrition; it re-establishes normal nutrition by eradicating the ever-present atonic condition of the digestive organs, thus assuring the maintenance of normal digestion and assimilation of food; restoration of tone and nervous force to the entire system, and incidentally to the mucous membrane, is a natural sequence. Gray's Glycerine Tonic Comp. has, moreover, a direct local antiphlogistic and to vic influence upon the disordered circulation of the mucous membranes; it relieves engorgement and restores tone to the relaxed atonic blood vessels. This remedy will prove effective in obstinate and recurrent catarrhal affections of the respiratory and gastro-intestinal tracts which have resisted all other treatment.

THE PURDUE FREDERICK CO. Sole Proprietors,
No. 15 Murray Street, New York.

E. N. Campbell, M. D., Good Hope, Ill., says: I have used Aletris Cordial in threatened miscarriage and find it one of the finest and most efficient preparations that it has been my privilege to prescribe. Aletris Cordial should be used more than it is, although it is largely prescribed, yet like its twin sister Celerina, it is not prescribed often enough to prove its efficiency. Most all cases that these preparations are used in are of a chronic type, and those that require patience to relieve; hence, if these two remedies are taken regularly and persistently, according to the case, they will satisfy all concerned.

A Remedy Combining the Effects of Phenacetin and Salicylic Acid—In the case of the synthetic remedies the chemical composition of a drug sometimes throws much light upon its medicinal properties. This is well shown in the case of salophen, which represents a common chemical combination of salicylic acid with acetylparaamidophenol. In this preparation we have associated the effect of salicylic acid with that of phenacetin. As pointed out by Dr. Hill in a recent article (*Denver Medical Times*) nearly all the newer antipyretics owe their fever reducing effects either to paraamidophenol or to some of its oxidation derivatives. For this reason the range of utility of salophen in medical practice has been constantly enlarging, and it is now employed not only in the treatment of rheumatic affections, but also as a general antipyretic and antineuralgic. Dr. Hill states that a careful and impartial summary of all the clinical evidence proves indisputably that up to the present this remedy is our best, safest and most eligible antirheumatic, and that it is also an efficient antineuralgic and intestinal antiseptic. In his own opinion, based upon the experience of several hundred cases, salophen is the culmination up to date for definite therapeutic purpose of the aromatic series of which phenol, salicin, salol and salicylic acid are the crude prototypes.

Write for Them—Have you a case of indigestion acute or chronic? If so write Messrs. William R. Warner & Co. of Philadelphia for complimentary copy of their book "The Clinical Application of Ingluvin" by John V. Shoemaker, M. D., Professor of Therapeutics, Medico-Chirurgical College, Philadelphia. It is a very interesting book, beautifully printed on coated-paper. Messrs. Warner & Co. are also issuing exceedingly interesting booklets "The Acid Diathesis," "The History of Sugar Coated Pills" (of course you know that W. R. W. & Co. were the pioneer manufacturers of Sugar Coated Pills,) "A Study of Rheumatism," "A study of Constipation" etc. Any of them will be sent free upon request. Of course each of the books will tell you why it is desirable to specify "W. R. W. & Co." when ordering any of the remedies suggested in the booklets, and the reasons are very good ones. Manufacturing, as they do, the highest quality of pharmaceuticals, physicians certainly secure first class remedies when they specify Wm. R. Warner & Co.

Highest Award—It is especially gratifying to the many physician prescribe Warner's remedies to learn that at the National Export Expo recently held in Philadelphia the Highest Award consisting of Silver Medal and Diploma was given W. R. Warner & Co. for the excellence and of their pharmaceuticals.

Index of Subjects for Vols. 43 and 44.

Appendicitis, etc.,.....	I, 107, 166	Intestinal Antisepsis,.....	293
An Unusual Case,.....	313	Ileo—Colitis and Dysentery,.....	69
Annual Oration,.....	388	Inflating the Middle Ear,.....	219
Antiseptic Midwifery,.....	398	Juvenile Criminals,.....	65
Asepsis and Antisepsis in Surgery,....	404	Lithaemia,.....	148
Anaesthesia,.....	73	Lithaemic Cystitis,.....	290
Abdominal Pregnancy,.....	98	Malarial Harmoglobinuria,.....	180
Abdominal Operations,.....	157	Medical Treatment of Appendicitis, ...	209
Abuses in Nasal Surgery,.....	232	Modification of Diseases,.....	220
Acute Dyspeptic Diarrhoea,.....	266	Ophthalmoplegia of Right Eye,.....	101
Case of Sick and Wounded in Revolu- tionary War.....	213	Organic Comp. of Silver Nitrate,.....	203
Chronic Diarrhoea,.....	282	Operation in Retro-Deviations,.....	324
Chloroform—Ether Controversy,.....	348	Perforating Ulcer of the Deodenum,....	109
Caesarian Section,.....	360	Pseudo Membranous Enteritis,.....	142
Chronic Gastro—Intestinal Catarrh,...	406	Protonuclein in General Practice,.....	222
Clinical Notes,.....	70	President's Address,.....	383
Chlorosis,.....	103	Progress in Serum Therapy,.....	I
Combined Stomach Tube and Douche,...	231	Prostatic Hypertrophy,.....	129
Cerebro—Spinal Meningetis,.....	253	Pernicious Malaria,.....	132
Chronic Renal Disease,.....	293	Poster.or Dislocation of the Uterus,....	163
Control of Tuberculosis,.....	320	Recent Eye Cases,.....	36
Drainage in Abdominal Surgery,.....	57	Synopsis of Annual Essay,.....	96
Dystocia,.....	61	Should Nerve Stimulents be given the pregnant woman.....	102
Duration of Acute Gonorrhoea,.....	252	Shall we Operate in Every Case of Ap- pendicitis,.....	171
Disorders of Digestion,.....	279	Stricture of the Esophagus,.....	315
Dysmenorrhoea,.....	345	Typhoid Fever,.....	144
Deflections of Nasal Spectrum,.....	73	Treatment of Summer Diarrhoeas,....	286
Empyema,.....	247	Tumor of the Brain,.....	10
Ectopic Pregnancy,.....	5	Treatment of Gen. Suppurative Peri- tonitis,.....	33
Education of Young Girls,.....	135	Treatment of Uremia,.....	76
Elephantiasis,.....	197	The Doctor, the Druggist, etc.,.....	100
Fecal Impaction,.....	12	Therapeutics of Blistering,.....	138
First Three Years Surgery work,.....	53	Treatment of Uterine Fibroids,.....	160
Foreign Body in Esophagus,.....	43	Treatment of Gonorrhoea,.....	198
Fractures of Skull,.....	189	The Blood in Diseases of the Cardio Vascular,.....	329
Foreign Bodies in the Rectum,.....	200	Uricocidaemia,.....	156
Gastro—Intestinal Catarrh,.....	291	Urethral Calculus,.....	127
Glaucoma,.....	322	We Have Tried Them,.....	201
Glycerinized Vaccine Lymph,.....	224		
Hemorrhagic Malarial Fever,.....	191		
Hemorrhagic Fever,.....	193		
Hydrotherapy,.....	227		
Hemorrhoids,.....	283		

Index of Authors for Vols. 43 and 44.

Adams, M. D., M. R.	313	Long, M. D., J. W.	166
Anderson, M. D., A.	197	Lott, M. D., H.	388
Archer, M. D., S.	103	Mangum, M. D., C. S.	383
Averitt, M. D., K. G.	200	Mann, M. D., J. J.	193
Bass, M. D., H. T.	252	Matthews, M. D., Prof. Jos. M.	12
Bell, M. D., J. U.	231	Matson, M. D., E. G.	293
Bolton, M. D., M.	98	Meriwether, M. D., T. T.	157
Cheatham, M. D., G.	404	Minor, M. D., C. L.	96
Cheatham, M. D., Wm.	322	McAnally, M. D., Wm. J.	406
Costner, M. D., T. F.	65	McAnally, M. D., C. B.	209
Creel, M. D., M. P.	345	McGuire, M. D., S.	33
Dickinson, M. D., E. E.	132	McKenzie, M. D., W. W.	598
Dunn, M. D., Jno.	156	Nuckols, M. D., M. E.	220
Edson, M. D., A. M., C. E.	320	Packard, M. D., F. R.	213
Evans, M. D., T. E.	73	Payne, M. D., R. L.	282
Faison, M. D., J. A.	291	Perkins, M. D., S. L.	102
Felts, M. D., R. L.	129	Price, M. D., M. G.	201
Fitch, M. D., Wm. E.	135	Pritchard, M. D., U. B.	10
Fladger, M. D.	142	Ritchy, M. D., J. A.	293
Fouts, M. D., J. H.	73	Roy, M. D., Dunbar.	36
Gibbon, M. D., J. H.	43	Royster, M. D., A. B., H. A.	70
Goëlet, M. D., A. H.	163	Schacher, M. D., A.	348
Harrison, M. D., V. A. M.	171	Sherman, M. D., G. W.	222
Hare, M. D., H. A.	293	Sherrill, M. D., J. G.	189
Haren, M. D., A. C.	227	Stafford, M. D., U. G.	69
Hill, M. D., A. B., C. D.	247	Stanton, M. D., D. A.	61
Hughes, M. D., R. E.	144	Stengol, M. D., A.	286
Irwin, M. D., J. W.	253	Sterman, M. D., U. G.	100
Irwin, M. D., Jno. R.	283	Studds, M. D., Geo. H.	203
Johnson, M. D., G. B.	315	Taylor, M. D., H. M.	324
Kenner, M. D., R. C.	266	Upsher, M. D., Jno. M.	274
Kollock, M. D., C.	101	White, M. D., T. N.	191
Laton, M. D., W. S.	232	Williams, M. D., J. W.	360
Lewis, M. D., A. W.	180	Wilson, M. D., Jas. C.	77
Loftin, M. D., A. B., L.	219	Wright, M. D., G.	290
Long, M. D., H. F.	1	Wyeth, M. D., Jno. A.	10
Long, M. D., G. W.	107	Young, M. D., M.	138

ARGUS STORAGE

